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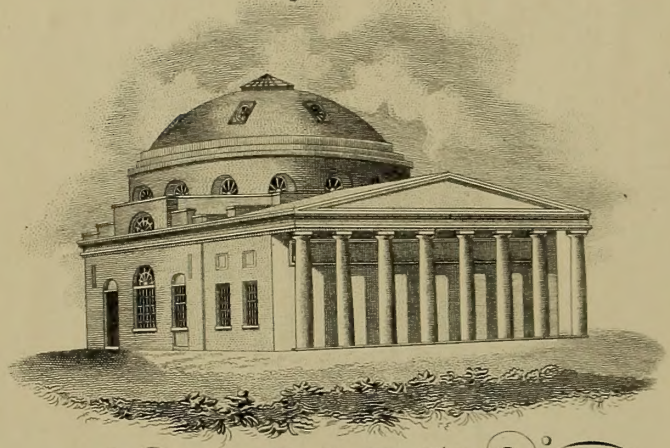

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1879 (a)

Author	Title	Notes
White, James M.	Yellow Fever	
Coffroth, H. J.	Pleuritis	
Cockrell, W. S.	Diphtheria	
Middlekauff, Joleph H.	The Hand	(faded ink)
Powell, John H. E.	The Pneumogastric Nerves	
Myers, Errett C.	The Forceps	
Zimmerman, Edwin	Typhoid Fever	
Moab, William A., Jr.	Laparotomy	
Harlan, Herbert	Epilepsy	
Gorter, Nathan R.	Yellow Fever	
Pue, Michael	Typhoid Fever	
Collenberg, J. Henry	Cholera Infantum	
Ijams, George	Typhoid Fever	
West, Frank	Diphtheria	
Cockey, M. Gist	Rheumatism	
Baker, Julian M.	Dysmenorrhea	
Hocking, George H.	Diphtheria	

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1879 (A)

White, James M.	Yellow Fever	36p.
Coffroth, H. J.	Pleuritis	25p.
Cockrell, W. S.	Diphtheria	18p.
Galligher, ~~N.~~ Henry P.	Diphtheria (torn pages)	19p.
Middlekauff, ~~J.~~ Joseph H.	The Hand (faded ink)	16p.
Powell, ~~J.~~ John H. E.	The Pneumogastric Nerves	19p.
Myers, ~~E.~~ Errett C.	The Forceps	20p.
Zimmerman, Edwin	Typhoid Fever (hole in pages 36-44)	47p.
Moab, Wm. A. Jr.	Laparotomy (not in cordell)	40p.
Harlan, Herbert	Epilepsy	14p.
Gorter, ~~N.~~ Nathan R.	Yellow Fever	27p.
Pue, Michael	Typhoid Fever	12p.
Collenberg, J. ~~H.~~ Henry	Cholera Infantum	15p.
Ijams, ~~G.~~ George E.	Typhoid Fever	20p.
West, ~~R.~~ Frank	Diphtheria	19p.
Cockey, M. ~~G.~~ Gist	Rheumatism	10p.
Baker, J. M. Julian	Dysmenorrhea	35p.
Hocking, ~~G.~~ George H.	Diphtheria	24p.

A Thesis

on

Yellow Fever

respectfully submitted to the

Provost, Regents & Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

James A. White

of

District of Columbia

A. D.

1879.

43

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Yellow fever. Black vomit.

This disease which has attracted so much attention from the public and medical profession, during the past summer from its prevalence and great fatality, is a disease which usually makes its appearance in the form of an epidemic, though this is not always the case; for some years we have it occurring endemically. The question whether this be a distinct fever has led to a great deal of discussion, both in this country and abroad. Thus some writers contend

that it is identical with typhus and typhoid while others claim its identity with remittent fever and that it originates from the same cause.
It is very probable that either of these diseases may and often do occur as a complication in yellow fever; but as for their being the one and the same fever it has long been abandoned by the majority of writers on this subject.
Whether yellow fever originates from the same cause

as remittent we cannot say for we are in doubt as to whether it is owing to a malarial origin or some specific poison. Most writers claim that it is owing to the latter, and that all cases where we do not have remittent or intermittent fever combined it is of the continued type.

Anatomical Characters. The principle lesions found in a patient dead from yellow fever are according to various writers situated in the stomach, liver and

sometimes intestines. The stomach is the most frequent seat of morbid changes. There is found a thickening and soften-
-ing of the mucous mem-
-brane and a general appearance as if congested. We are not certain that these conditions are true characteristics of the disease, for the reason that they have not always been found. Some say they are due to cadaveric changes. There is generally found a quantity of matter

in the stomach resembling that which is vomited before death (black vomit.) which is thought by some to be blood disintegrated by the action of the acids of the stomach. It is of a dirty brownish color and looks very much like coffee-grounds. The changes that are found in the intestines are a general congestion of the mucous membrane with red patches diffused over the surface and sometimes ulceration of Peyer's patches

and the solitary glands of the small intestines. This is however very rare. The intestines are said to be filled as a general rule with the same substance as that found in the stomach. The meninges of the brain and spinal cord are very seldom found affected.

The lungs have been found to contain coagulated blood and dark gangrenous patches have been observed in its tissues. These conditions no

doubt are due to the extravasation of blood, or pulmonary apoplexy resulting from the hemorrhagic tendency which is so often manifested in this disease. It is hardly right for us to say that we have a true lesion; that is, one that we can rely on, unless it is that occuring in the liver first observed by Prof. Clark, who says: "That there is a general deposit of fat and oil globules through the epithelial cells of the

liver, and a yellowish discoloration of its substance" This has been observed also by other eminent writers on this subject.
Clinical History – Yellow fever is usually ushered in like all other febrile affections, a chill followed by fever.
It may be preceded by premonitary symptoms or it may come on very suddenly.
If the chill be slight the febrile excitement will not be so great as if a severe chill occured.

The febrile movement varies in intensity in different cases; it is sometimes quite intense, oftener moderate, the heat of the surface rarely being much raised, and the pulse seldom exceeding 100 beats in a minute. The tongue is most always affected, being highly coated but moist and reddish at its edges.

The eyes present a peculiar appearance, giving the patient a look as if he were laboring under

some distressing mental emotion. Gastric symptoms often become very prominent from the first; but as a general rule they are not developed before the first or second day of the disease. They consist of nausea, sometimes vomiting; though this usually occurs at a later period of the disease; pain in the epigastrium, and considerable tenderness on pressure. The stools are scarce and according to Roberts there is often obstinate constipation and flatulence.

The nervous system presents the most distressing symptoms, severe cephalodynia and shooting pains in the loins and calves of the legs; being almost constant.

The frequency with which the lumbar pains occur marks this ~~symptom~~ as quite a diagnostic feature of the disease. This pain is also met with in variola, but in no other diseases is it so marked as in these two. Delirium is

often present, and as the disease advances we may have more or less stupor according to the gravity of the case.

This stage is not of long duration, as a general rule not lasting but a few hours, though it may occasionally last three or four days.

After this follows either an abatement or an entire cessation of febrile action.

This is what some style a stage of remission,

and in a major-ity of cases they are correct, for the reason that there usually occurs secondary fever.

This stage like the first is of short duration except in the milder cases. If the disease is mild, convalescence often commences at this period and the patient soon recovers.

As a general rule though, this change is only temporary and very cautious should the physician be in pronunce-

ing the prognosis for in a few hours the case may assume the very worst type of the disease; the pain and tenderness in the epigastrium increasing, yellow discoloration of the skin, scantiness of urine and a great tendency to stupor all coming on in a very short while. The remission as said before, does not last longer than three or four days, after this we have the third stage of the disease. This has been

called the stage of collapse sometimes in very fatal cases. The collapsed condition is denoted by great prostration, feebleness of the pulse, coldness of the extremities, delirium in some cases, while in others the intellect remains clear, mental indifference generally existing as in cases of epidemic cholera, and finaly death by asthenia.

If this condition does not take place we have secondary fever

and indeed this has been called by some the stage of secondary fever. When this condition occurs there is not so much danger as in the the collapsed.

Febrile excitement often runs very high, the pulse being accelerated respiration increased and the temperature far above that of the normal standard. If the temperature of the body exceeds 107°, the disease most always proves fatal.

Black vomit usually

takes place ~~[illegible]~~ in this stage, though not unfrequently it has been observed in the earlier periods of the disease.

There has been a great deal said in regard to the cause and composition of this peculiar matter, heretofore; but it has been abundantly settled by chemical and microscopical examinations to be blood changed by the acids of the stomach. It is said to contain mucus epithelium and

deformed blood-disks.
The secretion is usually very acrid and often excoriates the patient's throat, tongue, and lips.
It varies in color, sometimes presenting a bright red, while again it is of a dark brown, resembling coffee-grounds.
The amount of this matter vomited varies with each individual case.
The matter is usually ejected with a great deal of force; though sometimes it seems as if it were thrown out by an act of

regurgitation rather than that of vomiting. It generally ceases a short time before death. Hemorrages from the different organs of the body, and from the skin frequently occur in this stage; sometimes so profusely as to jeopardize the patients life. This is thought to be due to the watery condition of the blood. The tongue in this stage is found to be heavily coated, often becoming very dark brown, and sometimes even black,

dry, and fissured. Sordes gather on the lips and teeth, the skin becomes of a dark yellow or bronzed hue, due to the coloring matter of the blood; the pulse becomes rapid, weak and irregular, and the patient lies in a state of gloomy indifference, not noticing anything or any one around him.

The patient may be conscious to the last; while again he may sink into low muttering delirium followed by

convulsions and death. If death does not take place, this stage is usually the stage of convalescence. The recovery is always very slow, and is frequently preceded by fever having more or less of the phenomena of the typhoid state.

The disease may be said to be divided into several varieties according to the kind and intensity of the symptoms. Thus we have the term Algid given to it when there are symptoms

presenting like those of intermittent fever only in a much more severe form. The patient is very cold and usually dies after two or three paroxysms. We may also have a Typhus, Typhoid, Petechial, Hemorragic, Sthenic or Asthenic form of the disease; these names being applied to the different characteristic symptoms of the disease.

The duration of yellow fever is variable. The shortness of its career being a distinguishing feature. The

average duration is according to various authors somewhat less than a week.

Causation— The nature and source of the special cause of yellow fever has not yet been positively determined, except that it originates from some cause outside of the body. The conditions under which it is produced however are well known. Thus we know that yellow fever occurs more frequently in tropical climates than in temperate and hardly

ever in the latter autumn it is during the excessive heat of summer, ceasing soon after the first two or three hard frosts.
This shows very plainly that it takes a certain high temperature for the development of the poison which generates the disease.
It is thought by some authors to be contagious but numerous experiments to test the question of its communicability by swallowing the dejections of patients suffering with

it, and by the utmost possible exposure, such as sleeping in the apartments of yellow fever patients have all given negative results. Therefore we have no grounds for supposing that the disease is at all contagious. That the special cause of the disease may be imported, facts appear to show conclusively that such is the case; we should therefore be very cautious in allowing vessels containing articles of merchandise sent from a port where yellow fever

is prevailing to enter one where it has not made its appearance. In this way and by proper drainage we may succeed in checking the spread of this terrible pestilence.

Diagnosis— In the first stage of the disease we have nothing highly distinctive presenting, and it is very difficult and some say that it is impossible to form a diagnosis, unless it is during an epidemic. The symptoms which have the most diagnostic significance in

the first stage are the severe pains in the back and limbs, suf- -fusion of the eyes and generally the suddenness of the attack.

In those cases where the disease has passed the first stage, and black-vomit occurs, your diagnosis is easily made. It is of impor- -tance however to remember that we have in remittent fever sometimes vomiting of matter resembling that vomited in yellow fever.

The prognosis like the diagnosis is most always

difficult to determine; for some of the cases which at first appear to be very mild, may in a few hours take on the grave symptoms of the disease and terminate fatally, while on the other hand a case that seems almost passed recovery may take a change and terminate favorably. As said before we should when dealing with so uncertain a disease, as yellow fever, and one so fatal in its results be very cautious in pronouncing the prognosis.

Treatment— We have no special treatment in yellow fever that we can rely on, and there has not as yet been discovered any specific for the disease. We must therefore be guided by our own observations, treating the symptoms as they arise in each individual case.

The disease in its milder forms requires but very little treatment except careful attention to the laws of hygiene, not allowing the patient to overload his stomach with food

that is indigestible and not nutricious. In a great number of the cases affected with the graver forms of the disease we have no possible means for treating them because their duration is so short that before the action of the medicine can be obtained the patient is dead.

There have been many modes of treating yellow fever suggested such as sponging the body with cold water, applying the wet sheet, and placing ice to the spine in the

cases where the temperature of the body runs very high, and the administration of stimulents and friction to the surface by means of towels in the cold or Algid condition. When the tongue is dry ice may be given. If the bowels be constipated, which is often the case, a purgative may be given and according to our worthy Professor of Practice calomel given in ten grain doses acts better than anything else that may be given for the reason that it rests on the stomach

so well. The pain in the the epigastrium and lumbar regions may be often relieved by the local ab-
-straction of blood by means of cups. If there be any tendency to the hemorrhagic variety this would not be advisable, we should then resort to the use of anodynes. Opium is about as good an agent as we could employ but we should be always careful in giving it where there is a tendency to suppression of urine, or we might lead to serious uræmic poisoning.

If the urine be deficient it is an indication for the use of diuretic remedies and if the suitability of the stomach will not admit of their being retained and there are symptoms denoting danger from uraemia the hot air bath should be employed or if this be not sufficient to promote diaphoresis we may use some hydragogue cathartic such as croton oil or elaterium both of these agents very much alike in their action having a diuretic as well as hydragogue

effect. When the gastric irritability is very great ice will be found very useful, sinapisms, spice plasters, chloroform in small doses, prussic acid diluted, and creasote may often do great good. Chloral Hydrate may also do good. If the vomiting is excessive the acetate of lead is highly extolled. It is also a good agent to administer when internal hemorrhage takes place. The oil of turpentine is used to a great extent in this disease. Ergot is a good agent to use in

cases of hemorrhage for its action in contracting the uterus. When the disease presents a malarious form the antiperiodics may be given. Quinine being the best. To relieve the scalding produced by the vomiting the antacids may be used. Chalk being very near the best that we can use. The patient should be kept quiet always; and a good kind nurse employed to attend to the wants of the sufferer. These conditions, combined with a strict attention to ventilation, will be of the greatest importance in rem-

An

Inaugural Dissertation

On

Pleuritis

Submitted to the Examination

of the

Provost, Regents, and Faculty

of

Physic

of the

University of Maryland

For the Degree of

Doctor of Medicine

By

H. J. Hoffroth

of

Maryland.

Respected Sirs:

You have called upon me, to present you with an essay on a subject connected with medicine. In replying I propose to claim your attention for a few moments, to Pleuritis; one of the many painful and distressing maladies which are so common among us. In writing on this disease, I will now and then wander from my true subject, and allude to an affection from which it is sometimes very difficult to distinguish, viz. Pneumonia. In Pneumonia the lung is the part attacked as is also the case in Pleurisy

and they suffer in respect to the portion of lung attacked. In pneumonia the lung substance is the seat of inflammation, while in Pleurisy the investing membrane is attacked, and the two are thus distinguished.
The investing membrane of the lung is called the Pleura, one part of which lines the firm walls of the chest and the other invests the soft and compressible. The Pleura is a serous membrane and in a state of inflammation is attended with pain, pouring out of serum, coaguable lymph, pus, and blood. Pleurisy then is the inflammation of the Pleura.
The first effects of inflammation

the [illegible]
tion, producing dryness, of the mem-
brane. The first visible alteration
is redness. Soon after inflamma-
tion sets in effusion comes on.
The effect of coagulable lymph will
first attract our attention. One con-
sequence of this, is the formation
of false membranes, which vary
greatly in different cases, in respect
to their thickness, situation, extent,
organization, and effects. When
the lymph is first deposited upon
the free surface of an inflamed
pleura, it is soft and of a grayish
white color, which increasing in
consistence is finally converted
into a false membrane, becoming
[illegible] ment of the living [illegible]

[illegible] in relation to certain di-
seases of the heart than in cases
of pleurisy. In [illegible] the liquid
matter poured into the serous
membranous sac, have far more in-
teresting consequences, [illegible]
to those I will now offer.
The different kinds of fluid effused
into the pleura are always, or
almost always without odor,
provided there is no communi-
cation between the cavity of the
pleura, and external air. The
effects of these different fluids being
collected in the pleura, will vary
accordingly to the quantity of fluid
accumulated. This quantity may
be from less than an ounce to
several pints. At first it is [illegible]

in the cavity of the pleurae, only
at the expense of the yielding lung,
which is compressed to make
room for it; but if the quantity
continues to increase, other neigh-
boring parts are at length dis-
placed by the increasing pressure;
as the abdominal viscera, the
diaphragm, spleen, and stomach.
Such is a general account of the
anatomical characters of lungs,
as they appear by an examination
of the body after death.
In the next place we must inquire
what effects these changes are ca-
pable of producing, on the sounds
which are heard, when the healthy
chest is percussed or listened to.
When the lung is pushed away from

the walls of the thorax by fluid between the pleurae, it will be compressed; also its capacity [illegible] reduced, less air will be allowed to enter it. There will be a proportional diminution in the intensity of the respiratory murmur; and the murmur will moreover, be less audible, in consequence of the distance from the ear, to the structure in which it takes place.

The being attached to the spinal column, a moderate effusion will cause it, to recede upwards, inwards, and a certain quantity of liquid will ascend between the lung and ribs compressing the spongy pulmonary tissue around the larger and more [illegible]

transition to be. We might expect in this condition of things, that the passing breath, and the voice would be audible in those tubes through the partially condensed lung and through the circumscribed layer of fluid; and we are not mistaken, this is so. We have the bronchial respiration, the bronchial voice and cough. In this respect you will observe, that Pneumonia, which solidifies the spongy texture of the lung around the bronchial tubes, by filling it with lymph or blood has the same effect, so far as acoustic principals are concerned. So Pleurisy solidifies a portion of the lung by expressing air [from] it and forms around the bronchi

tubes of fluid which readily transmits sound. Hence bronchial respiration, and bronchopony are not always indicative of the same conditions of parts within the chest; but derive their true value, and meaning from the [illegible] stances under which they occur, and with which they are associated. If percussion is made over a portion of the chest beneath which, instead of healthy and spungy lung, there is incompressible serous fluid, a dull flat sound will be rendered. But a dull sound is produced also when percussion is made over a solidified lung. Hence the mere dullness of the part struck, does not inform us whether [illegible]

pneumonia or pleurisy to treat with. But we have this mode of rendering percussion conclusive. The dull sound produced by a solidified lung, or Hepatization occupies the same spot in every position of the patient; while the dull sound, produced by the presence of liquid in the cavity of the pleurae will vary, according to the position of the patient, as the liquid will gravitate to the lowest part of the cavity, and will carry with it, the dull sound. We now come to consider the—

Symptoms—. The general signs are rigors and pains in the chest, dyspnoea, cough, difficulty of assuming certain positions ...

fever. The pain called the pleurodynia, or the stitch in the side, as it is commonly called, is one of the most striking and characteristic signs of this disease. This pain is usually increased by inspiration, pressure, and by lying on the affected side, by deep inspiration, cough, and by different movements of the body. The respiration is hurried and most especially, and while there is still pain, it is very much increased, the movements are short, hurried, and often interrupted, sighing. Cough is another of the ordinary symptoms of this disease. It does not occur in every case, but if it is small, half suppressed and ineffectual. In some few cases

this symptom also is entirely absent,
even though the inflammation is
intense, and the effusion into the
thorax is considerable. When cough
does exist, it is dry and accompa-
nied with the slight expectoration
of watery blood. When the expectoration
consists of frothy mucus, it is most
probably that the pleurisy is com-
plicated with Bronchitis. If rust
colored sputa is coughed up, it
is complicated with Pneumonia.
The position which the patient
assumes has produced a great deal
of confusion, and dispute, some
affirm that the patient lies on the
affected side, others the contrary.
Now of all the above symptoms,
there is not one when taken ...

can be said to be strictly, and absolutely pathognomonic of the existence of thoracic effusion. But when all or several of them occur together, they afford a degree of probability on these points almost equivalent to certainty. There are yet some other and more conclusive signs which either in themselves, or taken with those already mentioned, render the diagnosis easy and sure. These signs are furnished by the sides of the thorax or the affected side, by its form and motion, succussion, and Auscultation. The side which contains the effused fluid becomes evidently larger than the opposite. The ribs and

their cartilages fixed in that position which they commonly occupy in deep inspiration; the intercostal spaces are pushed outwards, and brought up with a level with the ribs. When these appearances are observable, no doubt can remain concerning the nature of the disease. We will now look at the auscultatory signs. As soon as even a slight amount of effusion commences in the pleura it is announced by a diminution of the hollow sound which percussion elicits in the healthy state; and in proportion as the effusion becomes more considerable, the duller the sound. The dullness of sound in Pleurisy differs from that of

[illegible]
is only rendered at the lower-
most part of the cavity. Dullness
comes on much more quickly
in Pleurisy, than in Pneumo-
nia; moreover Pleurisy may dis-
place the mediastinum and
cause the whole of the sternum
to give a dull sound, while
a hepatized lung will render
only one half of it dull. Again
in the onset of the disease, the
breathing is heard more faintly
and feebly on the painful side,
than on the other. As soon as the
effusion commences, the vesi-
cular rustle is heard still con-
tinuing on the affected side; and
in proportion as the eff-

becomes greater, and more
more faint is the rustle; and
at the same time becomes more
distinct, and noisy than nat-
ural on the sound side; and
while the respiratory murmur
is disappearing on the diseased
side, and the spongy lung is
becoming empty of air, from the
pressure of fluid, and the larger
bronchi are surrounded by a
compressed lung, and by in-
compressible liquid; the bronchial
sounds begin to be heard, which
are not exactly the same as those
of Pneumonia; being modified
by the substance through which
they pass. The sound is more
trembling, quivering, and thrilling

the sound is most distinctly heard near the inferior angle of the scapula; the patient being in the sitting position.

We now come to the exciting causes of Pleurisy, which are of great importance to the practitioner as much of the frequency and treatment depend upon them. The most common exciting cause is exposure to cold, which is so common and well understood that it needs no explanation.

Pleurisy may be excited by the splintered ends of a broken rib and if the pulmonary pleura be wounded air may get into the pleural cavity, as well as into the areolar tissue beneath the

[illegible] emphysema. [illegible]
also be excited by a [illegible]
tension of a tubercular [illegible]
tion. In one case air will enter
from without, and on the other
air will pass from the lung into
the pleural cavity. Now the mod-
ification of sounds that occur,
are particularly curious. The
air of course occupies the highest
portion of the cavity, and the
liquid the lower, in whatever
position the patient is placed,
and this being the case, percussion
will give a remarkable hollow
sound, when made upon the
uppermost part, and a dull
flat sound when made upon
the lowermost part, and [illegible]

position of the patient be reversed the resonant, and dull sound will interchange, giving a sound resembling a half filled barrel when tapped upon. On applying the ear to the chest, a noise is heard resembling that produced by blowing obliquely into an empty flask, the voice or cough resembling that produced by a person speaking or coughing into a well. It is plainly seen then that the conditions of Pleurisy and the symptoms of those conditions may be modified by the causes. All those causes that imply, the introduction of air into the cavity of the pleurae; implies also a more serous state of [illegible]

than results from most other causes. Pleurisy may terminate in resolution and complete recovery, or in adhesion which is the next best termination, obtaining for the patient, at the expense of some slight embarrassment of the breathing; a complete security of the futur, against the danger of Pleuritic effusion. Acute Pleurisy may however end in a chronic disease of the pleural cavity. Lastly Pleurisy may terminate in death, caused either by copious effusions, or on the other hand, thorough exhaustion of the disease.

Treatment: In the early period of acute Pleurisy accompanied by high febril movements [illegible]

rated pulse, and of abnormal strength; the abstraction of blood affords relief. The useful effects of blood-letting may frequently be obtained by other means. The mass of blood may be temporarily lessened by saline purgatives, and diaphoretic remedies. The frequency of the hearts action may be affected, by nauseant sedatives, such as tartar emetic, ipecacuanha &c, and by direct sedatives viz-digitalis, aconite, and veratrum viride. The symptomatic fever may be modified without the loss of blood by saline depletories, and sedatives; and thus the evil of blood letting would
Opium in doses to relieve

is required in the first stage.
Aconite is a most valuable sed-
ative remedy in the early stages
of disease. The most effective mode
of giving it, is that recommended
by Ringer viz - Gtt. ss. to Gtt. j. of the
Tinct every ten minutes, or quarter
of an hour for two hours, and
afterwards the dose repeted hourly.
Smaller doses are to be given if
the pulse becomes feble or there
be much prostration. A sum-
mary of treatment of first stage
will then embrace, blood-letting
in some cases, Opium to relieve
pain, saline purgatives, and
remedies designed to act as seda-
tives upon the circulation. Blisters
should not be applied in this stage

they add an inflammation of the skin in addition to that of pleura. In second stage the object of treatment is to promote absorption of the effused liquid; this may be accomplished by the use of hydragogues purgatives, diuretics, blisters, and the use of remedies which act as sorbefacients. The patient must be kept on a low diet, mercury sufficient to [illegible] the gums slightly tender.

It is very rarely that the disease tends to a fatal ending by as the mi[illegible] should it have a tendency to do so by the symptoms, viz frequency, and feebleness of the pulse, muscular prostration, & ~~and~~ c, the treatment should then be alcholic

stimulants, nutritious diet, and tonic remedies. If fatal result may be due to rapid, and excessive effusion of liquid. If the liquid accumulates sufficiently to endanger life, it should at once be withdrawn from the chest by the operation of Thoracintesis, or Paracentesis by means of the Aspirator. Great caution must be used in performing this operation, a true diagnosis must be made or otherwise a fatal result may occur, examine the chest closely, measure it, if the intercostal depression be effected on that side, if dull on percussion etc. There are two objects only for which this operation may be

It may be curative in its intention or merely palliative. In single Pleurisy it may be adopted with the view of saving life and restoring health. Again when pleuritic effusion is complicated with other and mortal changes, the operation may sometimes be resorted to for the purpose of relieving urgent distress, and of prolonging a doomed existence.

Thesis

by

W. T. Cockrill.

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University of Maryland.

Session 1875-6

Diphtheria.

This is one of the most dreaded and formidable of all diseases. There are several arbitrary classifications of the disease but here however it is it is deemed sufficient to indicate these several degrees or varieties by the variable amount of severity and complications which will be mentioned. The first positive manifestation of the disease is the appearance in the fauces of its characteristic mark false membrane. In mild cases it generally confines its local manifestations to the fauces but in severer cases other parts are involved by the invasion of this membrane first in order of frequency the parts in direct communication with the

fauces, the oesophagus, the stomach, the larynx, the trachea, the bronchial tubes, the eustachian tubes, the posterior and anterior nares and the mucous membrane of the cheeks and gums; second parts which have no direct communication with the fauces, the conjunctiva, the meatus auditorius externus, the anus, the vulva, the prepuce, and any part of the skin that may be excoriated. The extent and violence of the local manifestations may generally be considered an index to the amount of constitutional disturbance. The lymphatic glands about the angles of the lower jaw are inflamed and tender and sometimes suppurate. The gland of one side or the

other is affected according to the affection of the fauces on that side or both glands may be affected equally when both sides of the fauces are affected equally in other words the extent to which the gland is involved indicates the severity of the disease on that side. The development of the disease is very variable. Sometimes it is acute, accompanied by rigors followed by fever, and at other times its development is mild and gradual. The patient complaining generally and the [illegible] discovered upon inspection of the throat even when there were no special indications inducing the examination. In some cases there is partial [illegible]

sis of the muscles of deglutition along with the development of the disease. When the larynx is affected there is often dysopnoea, and a hoarseness and barking of the voice. The circulation is always more or less influenced, the acceleration of the pulse in some cases being excessive and in others only moderate; an irregular pulse being considered a more unfavorable indication than either. Albumen in the urine is a frequent accompaniment, and is generally in proportion to the amount of diphtheritic exudation, other abnormalities of the urine are equally common, and along with these general dropsy is a very frequent occurrence or result.

The skin has no particular [illegible]
characteristic, but is of lower temp-
erature than would naturally be
expected considering the amount
of constitutional disturbance.
It is most often anaemic in
appearance whether dependent upon
hemorrhage or not. Congested spots
or ecchymosis are sometimes per-
ceptible generally as the result of
bleeding from a mucous surface.
Epistaxis is frequent and sometimes
very aggravating, requiring mecha-
ical means to stop it. The appetite
is always perverted and this along
with the pain caused by introducing
food through the inflamed parts
makes deficient nourishment a

a very provoking barrier in the course of the disease, but pain on swallowing is often strangely wanting when the throat is much affected. Continuous vomiting is very frequent. Diarrhoea is one of the most serious concomitants, and requires considerable attention in treatment. The affection of the mind is by no means regular except in severer cases. When uraemia occurs coma and convulsions generally produce fatal termination. The duration of this disease is quite variable, though generally from one to two weeks. Severe cases often terminate fatally short of this period

The [illegible] is paralysis of either the voluntary or involuntary muscles or both. The part about the throat is more often affected in this way than any other. Loss or impairment of sensibility and atrophy often occur and increase of sensibility more rarely. Of the special senses the sense of sight is more often implicated as a sequel, the other senses [illegible]. In regard to its causation there is the greatest diversity of opinion and an equal diversity as regards its nature, but now it is agreed among most good authorities that it is a constitutional disease [illegible] that it is a local disease [illegible]

the constitutional symptoms and urge the efficacy of local treatment as proof. Whether the cause is contagious virus or infectious miasma is a question still sub judice and liable to be for time indefinite. The prevalence of opinion is according to Dr Flint, in favor of the former, but many good authorities adhere to the latter. At any rate it is advisable to take the precaution of avoiding all unnecessary and especial exposure. Whether the theory of contagion be rejected or retained it should be recommended in all cases to dispose of the expectoration of the patient effectually and burn rags or clothes and bed-clothes which

have been exposed to the contagion of the sickness. The disease occurs epidemically and very irregularly, being usually confined to a district area or section. And the cause of its choice for its place of invasion has never been satisfactorily ascertained, further than it seems to thrive more promptly where filth and foulness abound. Susceptibility decreases with advancement in age. It exhibits a marked preference for children under fifteen (15) years of age the decided majority of cases occurring under this age according to numerous statistics. Senility seems to give immunity from the disease, cases being very rare after fifty years

The diagnosis cannot be made with any degree of certainty until the false membrane has made its appearance in the fauces which is preceded by general constitutional disturbance for a variable period and with an equally variable degree of severity. Before the appearance of the membrane it can not be distinguished from other febrile attacks and even after the appearance of the membrane it may be confounded with other throat affections as Laryngitis, Erysipelas of the fauces etc. but when the membrane is fully developed a little reasoning clears the diagnosis. During the prevalence of an epidemic of diphtheria there is often an epidemic

of sore-throat with constitutional disturbance which by some is termed "diphtheritic sore-throat", but the term is objected to by many on the ground that there is no manifest indication of its resemblance or relation to diphtheria, except the coincidence in time of occurrence. This affection should not in any way be confounded with diphtheria and therefore should not have the relative name of diphtheritic sore-throat nor should any of the throat affections in which false membrane does not appear have a relative name, for so grave and serious an affection, in which there is such a diversity of opinion as to its cause nature and treatment should have all [illegible]

from its connection that could possibly produce confusion.

The prognosis of a genuine case of diphtheria is always unfavorable. No matter how slight the case may seem the prognosis should be guarded. There are several concomitants which intensify the fatality, viz: invasion of the corpuscles, albumen abundant in the urine, very irregular pulse, convulsions and cold skin. The first named of these concomitants is said by high authority to invariably cause fatality usually from apnoea or dyspnoea unless the violent convulsions or disturbance supervene. The danger of death from exhaustion is next in production of fatality nutriment being

difficult for obvious reasons, Death sometimes though rarely occurs from syncope suddenly, in cases which otherwise are not apparently imminent. Two such cases are cited by Dr. Flint. The formation of thrombus in the right cavity of the heart has proven fatally. Paralysis is never imminently serious unless the muscles of respiration and deglutition are involved. It would be exceedingly to form an estimate with any accuracy, of the percent of fatality of this most ungovernable disease. For different epidemics have had very variable amounts of fatality and in most statistics cases of resembling diseases have been confounded with diphtheria.

In regard to treatment there is

almost as much disagreement as there is in regard to Consumption. Almost everyone who writes or makes up to upon this disease, has some special remedy or else of remedies which he recommends with a great deal of emphasis frequently drawing them and advocated by others. This, which may properly be termed antagonism of opinion arises in a great measure from the fact that different remedies have proven peculiar effects in different epidemics, and some of very decided efficacy in one epidemic may have proven a very inefficient remedy in another. So this is in the treatment of every other disease, the hygienic surroundings

are of paramount importance.
All unnecessary material such as carpets, curtains etc upon which morbid matter might collect and remain, should be removed from the sick room if practicable. and what is more important than this is an abundance of fresh air should be constantly supplied. The strictest attention should be paid to alimentation, and as there is generally such repugnance to all nutriments it is usually advisable to some of the nourishing concentrated preparations E.g. "Valentines Extract of Beef" "Liebig" is pronounced a reliable preparation and milk is especially serviceable in nearly all cases. Alcohol and tonics should be given as

the general expectation intended to counteract depression and to stimulate the vital forces into more healthy action.

Dr. E. H. Chapman of Brooklyn N.Y. has recently made report of his remarkable success with Alcohol and Tannin. He goes so far as to say that the former is a specific remedy. The importance of local treatment again agitates the question whether it is a local or constitutional disease. At any rate whether it is a local or constitutional disease, there is no question of the indispensable importance of local treatment. If all remedies lose of their efficacy

Iron. Quinine. Preparations of Potash and Soda. Carbolic acid. Creosote. Sulphur and the much used and approved vehicle Glycerine. It is scarcely necessary here to present any of the popular combinations. Wine of pepsine, applied to the throat by spray is recommended to dissolve the membrane. Topical application with general constitutional care may answer in mild cases but all severer cases especially those involving the larynx require both local and constitutional treatment. Antiphlogistics have been abandoned entirely and it has been concluded that they are freer from good than harm. Tracheotomy is a very

dubious point in cases are so seldom known to recover when the disease has advanced so far as to call for it but the conservative ground would be to advocate the operation when it is thought that there is the slightest chance of recovery by that means and more than otherwise, no matter how slight the chance may be considered.

Symptoms incident to this deadly disease require special treatment separately or collectively as they may indicate.

W. T. Cockrell

For many kindnesses, and much consideration shown me in repeated instances do I dedicate this thesis to Prof. Frank P. Miles.

W. L. Cockrell.

1878-9.

A Thesis

on

Diphtheria

Respectfully submitted to

the Faculty of Medicine

of the University of Maryland,

by

Harry P. Gallagher

Diphtheria

Diphtheria is an acute specific disease occurring both endemically and epidemically, and characterized by the formation of false membrane upon mucous surfaces, especially in the fauces, or upon wounds or abrasions any where on the surface of the body. It is on account of the formation of this pseudo membrane that the disease is called diphtheria, from the Greek word διφθερα or διφθερος, which signifies a membrane or parchment.

It was known to the oldest writers on medicine and its history can, probably be traced to a period beyond the time of Hippocrates, but undoubtedly the writings of Aretaeus who flourished about the middle of the first century contain a description of this affection; he describes it under the name of the malum Aegyptiacum. It occurred but rarely

in this country until the year 1857; since that time it is one of the most common & fatal epidemics we meet with.

Diphtheria seldom occurs sporadically it is eminently an epidemic, & like other epidemic diseases it has its specific cause. It is still an open question as to how far it possesses contagious & infectious properties. Numerous authorities can be cited in favor of either of these to the exclusion of the other, but the truth most probably is that it is both contagious & infectious. Nothing is as yet known with regard to the general conditions which favor its production; it has prevailed with equal severity in healthy & unhealthy situations, among the rich & the poor, in the depth of winter & the burning heat of summer. It is probable, however, that the prevalence of diphtheria & especially its virulence are favored by defects of drainage & by contamination of the air

& drinking water. Diphtheria is particularly liable to attack children & the vast majority of cases occur between the ages of two & ten years.

In the earlier writings on this subject little importance was attached to the constitutional symptoms attending diphtheria & it was thought to be an essentially local affection; this opinion gave way somewhat later to one which maintained that the constitution became affected secondarily. It is true that the epidemics which have occurred during the last twenty five years, seem to have been attended by far more grave constitutional symptoms than were present in the cases upon which Bretonneau & the contemporary writers based their observations, & it now appears that a careful study of the numerous reports of epidemics occurring in Europe & this country within the last ten years can leave no doubt that diphtheria is

a blood disease, attended with marked constitutional disturbance which is of a decidedly asthenic type. This view is now almost universally adopted; & in accordance with we find it (diphtheria) removed from the place it formerly held among treatises on local affections of the pharynx & now discussed as one of the general diseases. The chief argument in favor of this view are; its epidemic & contagious nature; the continued febrile action of the asthenic type attendant upon its course; the tendency to pseudo-membranous exudation on mucous surfaces & abrasions of the skin; the occurrence of albuminuria; & the frequent development of paralytic sequelae.

The characteristic feature, as already stated, is the presence of a false membrane. The fauces in the vast majority of cases is primarily affected, & sometimes the local affection is limit-

ed to this situation. The first appearance is redness of the fauces, accompanied by more or less swelling of the tonsils, sometimes only one, sometimes both. The pseudo membrane is, at first, thin & semi-transparent, soon, however, it becomes opaque & more or less thick; it is white or ash-colored but may become dark or even black from decomposition or the imbibition of blood; it may also be colored by remedies & vomited matters. Different cases differ in the extent of the affection within the fauces. One or both tonsils may be affected; these bodies are often so swollen as to almost meet & in other cases, they are only moderately enlarged. The pseudo-membrane may extend over the posterior part of the pharynx, the uvula, the palatine arches, & forward over the greater part of or the whole of, the soft palate. When

it is thick, loose, & dark or black, it presents an ulcerated or gangrenous appearance, which is implied in some of the names formerly given to this affection. Sooner or later, if life be sufficiently prolonged, the false membrane is thrown off; the exfoliation sometimes takes place in 3 or 4 days, though it is sometimes delayed to twenty days. Not infrequently it is followed by a second formation of the membrane, occasionally by a third & even a fourth. The question as to the identity or non-identity of the diphtheritic false membrane & the exudation which occurs within the larynx & trachea in fibrinous laryngitis or true croup is as yet sub judice. In mild cases of Diphtheria, the disease manifests itself locally in the fauces alone, but in cases of more or less severity & danger the diphtheritic affection manifests in other situations also. The Eustachian tubes, the anterior & posterior nares,

× the mucous membrane of the cheeks × gums may be involved, the eye is sometimes invaded × the diphtheritic conjunctivitis is very apt to destroy or impair vision, chiefly from opacity of the cornea. The diphtheritic inflammation may extend to the oesophagus × even to the stomach; a more serious invasion however is into the larynx, the disease, then involves the morbid conditions, which exist in true croup. As in croup, the inflammation × false membrane extend to the trachea × into the bronchial tubes, reaching sometimes the smaller ramifications; as a rule, though, it does not extend generally beyond the trachea. In cases in which the parts adjacent to the fauces become affected, the disease is not to be considered as spreading to these parts, but they are consecutively invaded, i.e. the affection of the fauces × also of these parts is simply a local manifestation of a constitutional

disease. The parts communicating with the fauces are not the only parts liable to be affected in cases of diphtheria, the meatus auditorius externus, the anus, the vulva, & the prepuce are sometimes affected; any abrasion of the skin, ulcers, & leech-bites may be attacked. Exceptionally it may be seated in some one or more of the parts already named & the fauces remain unaffected.

As with other contagious diseases, the symptoms vary greatly in intensity in different cases. In general is the commencement of an epidemic diphtheria is more severe & fatal & its symptoms more violent than when the epidemic influenza is abating. In the mild form of the disease the invasion is highly insidious; there is usually fever, but the strength & appetite are not much disturbed at first. There is at the same time, in some, though not

always, pain in the throat, which may or may not be accompanied by pain on deglutition, but these symptoms are slight & may sometimes be wanting entirely. In other cases the invasion is more abrupt & severe; great febrile action, headache, pain in the ear, aching of the limbs & loss of strength compel the patient to go to bed from the first. Delirium may be present but it is usually absent. Besides these mild cases, in which the chief danger is from extension of false membrane into the larynx, the disease in many instances assumes a grave form, in which the danger depends not upon the accidental extension of the inflammation but upon the essential alteration of the blood & the condition of the entire system. In these cases, too the onset may be insidious, though it is often preceded for a short time by general malaise, indispo-

sition to exertion, slight swelling of the cervical glands, & pain on deglutition. Whether or not these prodromes have been present, a more or less marked chill ushers in the febrile action, which is often quite intense for a few days. The fever soon subsides almost completely, sometimes leaving the surface pale & cooler than natural; the pulse may remain frequent but is small & compressible; & all the symptoms are characteristic of deficient vital force. There are but few symptoms of digestive disorder; the appetite, which is often retained for the first few days soon diminishes; there is rarely any vomiting. There is diminished secretion of urine. The submaxillary glands enlarge; there is an abundant flow of saliva, which often dribbles from the mouth & is said to be offensive. In many cases there is a discharge from the nostril, which becomes

acrid & offensive when there are false membranes in the nasal passages. The voice generally is obscured & nasal & somewhat hoarse even if the larynx be not involved. cough sometimes exists due to mere irritation of the larynx. The further course of these cases differs widely. If the case is to be fatal the depression & loss of strength increase, the pulse becomes exceedingly weak & frequent, the fauces assume a gangrenous appearance from decomposition of the false membrane, the swelling of the cervical glands increases, there is a constant fetid discharge from the nostrils & mouth, the breath is horribly offensive, & death ensues from profound prostration, or the fatal termination may be brought about much earlier by the extension of the false membrane into the larynx. Death, sometimes, is brought about by paralysis

of the heart & less frequently from the sudden formation of a heart clot – the fact that it may occur, should call for the most careful attention to the avoidance of all exertion on the part of the patient. If on the other hand the case tend to recovery, the false membrane becomes detached & is thrown off, the strength improves, the pulse is fuller & stronger & the appetite returns. Even in advanced convalescence there is serious danger of the occurrence of serious & often fatal sequelae. Passive hemorrhages from the nostrils & mouth, rectum or other mucous passages are of frequent occurrence. The duration of diphtheria is variable; most ordinary cases recover in from seven to nine days, though cases may run to two weeks.

There are numerous sequelae attendant upon

diphtheria, & the most prominent among them are; albuminuria, heart-clot, endocarditis, various forms of paralysis, deafness, & loss of vision.

In cases of ordinary severity, when patient is seen early & the disease is limited to the pharynx, the result is usually favorable; though no case, not even the mildest, is free from danger either of extension into the larynx & bronchial tubes, of exhaustion, or of subsevention of some complication; such as, endocarditis or the formation of heart-clot. If the inflammation extend to the nasal passages the prognosis is more unfavorable, & when the larynx is affected the prognosis is exceedingly grave. If the disposition to the production of false membrane spread to the skin, rectum, or vulva, the prognosis is also grave & death generally

occurs in a state of profound adynamia. The other signs of unusual malignancy, as, abnormal slowness & great frequency of the pulse; abundant false membranes, rapidly decomposing; hemorrhages from various mucous surfaces; acrid, fetid discharges from the mouth & nostrils; intense & persisting albuminuria, all tend to make the prognosis very unfavorable.

In most instances the diagnosis is readily made when the case has continued a few hours. You may, however, confound with true diphtheritic affection cases of pharyngitis with the deposit of abundant follicular secretion; the latter is a pultaceous deposit, not membraniform nor removable in strips & patches, & may be seen to dip into the follicles. It may also be mistaken for faucial erysipelas; but the

differential diagnosis between the two, their points of similarity & dissimilarity were very concisely given by Prof. H.m A. Howard in his lecture before the class at the University of Maryland; they are, as follows. Faucial erysipelas like diphtheria is (1) dangerous, (2) may extend to the larynx, (3) the mucous membranes are swollen & red, (4) the muscles may be paralyzed. Unlike diphtheria there is (1) pain in deglutition from the beginning; (2) no enlargement of the cervical glands; (3) no false membrane (4) it is not frequent. Scarlet fever too, has many points of similarity to diphtheria, but is different in some respects. The rash in scarlet fever is punctated & always present, it is rare in diphtheria. The throat in deposit in scarlet fever is pultaceous in character & does not extend to the larynx; albuminuria is a sequela of scarlet fever, a concomitant of

diphtheria; neither scarlet fever or diphtheria give immunity from each other.

The treatment may be usefully considered under the two heads of local & general. Of late years the latter has been more & more recognized as supreme: indeed, the utility of all local treatment has been questioned on the ground that the throat affection is merely a local manifestation of the constitutional trouble & that the disease rarely kills except by involving organs beyond the influence of such remedies. The great object to be held in view in local treatment is to favor the separation of the false membrane & to prevent extension into the larynx & nasal passages. The most important of the local remedies are included in the list of astringents & caustics. Of these nitrate of silver has been used

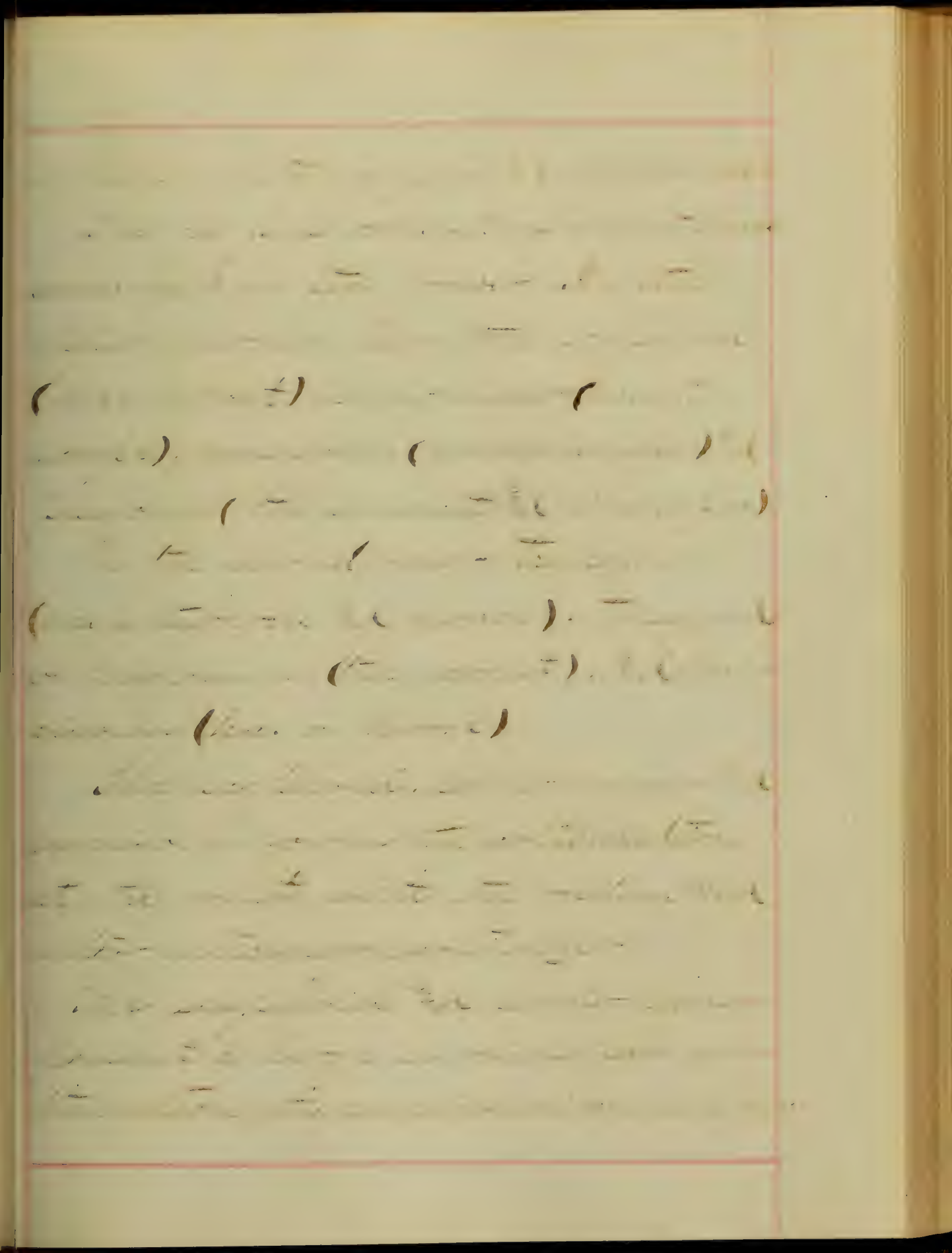
more than any of the others for many years past it may be employed in the solid state or in solution; hydrochloric acid is frequently employed, generally in combination with simple syrup or honey in the proportion of one part of the acid to ten parts of honey or syrup. Applications of powdered alum tannic acid, & chlorinated lime are recommended by some writers of high authority. The astringent & caustic preparations of iron have lately been introduced into the treatment of this affection with splendid results. Dr. T. Gaillard Thomas recommends the following formula as specially good,

℞

	Acidi Carbolici	gtt vj - x
	Liq. Ferri Subsulphat.	ʒiij
M	Glycerin	℥j

applied to the fauces with a camels hair brush. Gargles of chlorate of potash & iron may be used with advantage in some cases; among the other remedies mentioned is the inhalation of the vapor arising from slaked lime. When the fetid discharge of the nasal passages is present give some corrective injection to wash out the nares with, as the permanganate of potash ʒi to Oj of distilled water or a mixture of carbolic acid & lime water. Of late years lactic acid has been employed as a solvent for the false membrane & has proved itself to be one of the best that we have. In the general treatment of diphtheria the great aim is to keep up the vital force, for the disease is one of a marked asthenic type. Quinine & iron; stimuli; & good, nutritious food are specially indicated. The patient should not be al-

lowed to make any exertion at all on account of the danger of the formation of the heart-clot. Hygienic measures are of the utmost importance.



A Thesis

by

The Anatomico-Physiology

of the

Pneumogastric Nerve.

by

Dr. A. H. G.

A. D. 1870

[illegible] a [illegible] of [illegible]

[illegible]

In order

[illegible] the nerves [illegible] of the [illegible]

[illegible] of the [illegible]

[illegible] to the

manifold connections of the

nerves with the various phenomena

of life; but my intention is only

to give [illegible]

of them, as the few works at my

command, & the short time I have

been able to de[illegible]

permit.

the pneumogastrics, (or vagi and

vasive.) the tenth pair of [illegible]

[illegible], and one of the eighth pair of

[illegible] take their origin from the

ala cinerea, (a nucleus of gray
matter in the floor of the fourth
ventricle) and pass out through
the sides of the medulla [illegible]
in a series of ten or fifteen fil
aments. These filaments unitedly
form, on each side, a single
trunk each of which, on its res
pective side, after making its exit
from the cranium through the
foramen lacerum posterius,
enclosed in a sheath of dura ma
ter common to it and the [illegible]
accessory nerve, and in compa
ny also with the glossopharyn
geal nerve and internal jugu
lar vein, passes down the side of
the neck lying, at first, between

[illegible] and
internal carotid artery; but
afterwards, passes behind the [illegible]
and between it and the common
carotid artery; which position it
occupies until it reaches the
root of the neck. The nerves on
either side differ in their mode
of entering the chest. The right
passes in between the subclavian
artery and vein and descends
along the trachea to the posterior part
of the root of the right lung; where
it divides into two cords, which
pass down the posterior surface
of the oesophagus to its lower
part. At this point, the cords
[illegible] unite, and thus [illegible]

[illegible] along
the anterior aspect of the oesophagus, to the anterior part of the stomach. From the stomach, the nerves are distributed to the omentum, spleen, pancreas, liver and gall bladder, kidneys, [illegible] and capsules, and the whole intestinal surface.

[illegible]

[illegible]

ganglion, in the foramen lacerum posterius; and the inferior ganglion at its exit from the foramen. The inferior is the larger. At its ganglia, it communicates with the spinal acc[illegible] facial, and hypoglossal nerves; with the superior ganglion of the sympathetic, the inferior ganglion of the glossopharyngeal, and with the first and second cervical nerves.

The first branch of distribution from the pneumogastric is the pharyngeal; which is given

off at the upper part of the superior ganglion and which goes to assist in forming the pharyngeal plexus. The pharyngeal contains a large number of the filaments, received by pneumogastric, from spinal accessory, and is consequently a mixed nerve.

The second branch of distribution is the superior laryngeal, which leaves the pneumogastric at the inferior ganglion, and passes through the thyro-hyoidean membrane to the mucus membrane of the larynx and arytenoideus muscle, communicating with the recurrent laryngeal

[illegible] on the arytenoideus [illegible], and behind the cricoid cartilage. While behind the internal carotid artery, it gives off the external laryngeal nerve; which, after sending a filament to the pharyngeal plexus supplies the inferior constrictor and crico-thyroid muscles, and thyroid gland. The external laryngeal also communicates with the recurrent laryngeal, and [illegible] nerves. The superior laryngeal is a mixed nerve, containing both motor and sensitive fibres.

The auricular nerve is given off from, or just below the inferior

[illegible] of the [illegible]
and after [illegible]
branch of [illegible]
from the glosso-pharyngeal,
enters the petrous portion of
the temporal bone and passing
into the descending portion of
the aquaeductus Fallopii, [illegible]
the facial nerve. In the aquae-
ductus Fallopii it sends one
filament to the posterior auric-
ular nerve and one to the
pinna. The auricular nerve
receives filaments from the
facial, and glosso-pharyngeal
nerves.
The cardiac branches arise
from the thoracic and [illegible]

[illegible] of the [illegible]
and [illegible], some [illegible]
branches of the sympathetic
and some to the [illegible]

The [illegible] is given
off from the trunk of the [illegible],
at the [illegible] part of the neck;
from whence it ascends, and
is distributed to all the [illegible]
[illegible] of the larynx, [illegible]
[illegible] thyroid. As it passes
[illegible]
ments to the [illegible], and
trachea, and communicates
with the external laryngeal,
sympathetic, [illegible]
nerves. The [illegible]

[illegible]

[illegible]

The anterior pulmonary branches are distributed to the anterior aspect of the root of the lungs; and [illegible] cardiac plexuses, from the anterior pulmonary plexus.

The posterior pulmonary branches are distributed on the posterior aspect of the root of the lungs; and after being [illegible] the third and fourth ganglia of the sympathetic [illegible]

[illegible]

[illegible]

[illegible] sensibility to [illegible]

[illegible] pressions is of a very [illegible]

[illegible]

[illegible] of that peculiar kind which controls the reflex action of various vital functions.

The most important endowment of the pneumogastric, is, in all probability, to be found in its connection with respiration; though its function in this respect is not entirely understood. It has been found that section of the nerves in a dog, was

ata: and that impulse fi
e in the respiratory cur
stimulus, which calls
activity the

[illegible]
the influence of the [illegible]
[illegible] on the heart, [illegible]
filament [illegible]
[illegible]
by [illegible] the
chest, and by its own [illegible]
branches. It possesses a direct
inhibitory power [illegible]
of the heart, through [illegible]
[illegible] spinal accessory.
Galvanization of the [illegible]
is found to diminish [illegible]
action; and if the current be [illegible]
[illegible]ful enough, to check [illegible]
[illegible]. If [illegible],
the galvanization be long [illegible]
the heart will again contract.

takes place through the superior [illegible] and [illegible] pharyngeal, and oesophageal branches. At the commencement of deglutition, an impression is conveyed to the medulla oblongata, [illegible] and [illegible] is [illegible] ... [illegible] lowered and the sides of the rima glottidis approximated [illegible] any foreign substance into the [illegible]. When the food [illegible] passed into the pharynx, a succession of involuntary contractions are set up, by which it is forced into the stomach. After division of the pneumogastrics, this reflex action [illegible]

[illegible] the [illegible] of the food ceases; but the effect on the move-ments of the stomach is [illegible] in the food has been found to pass through, though more slowly, to the pylorus. The in-fluence upon the peristaltic ac-tion of the small intestine would seem, also, to be only partial. The pneumogastric exercises a [illegible] influence upon the secretion of the gastric juice and, also, upon the power of ab-sorption of the stomach. Its action upon the secreting power of the small intestine is not fully known, but cathartics have failed to act after its section,

The Forceps

How, Where, and When to use them.

An Inaugural Thesis presented
to the
Provost, Regents, and Faculty of Physic,
of
the University of Maryland
For the Degree of Doctor
of Medicine.

By

E. C. Myers. Febry, 1879.

The discovery of the Obstetric Forceps about the middle of the seventeenth Century, marks a new era in the history of midwifery, & would perhaps be more correct to say that this was a rediscovery made by Dr Paul Chamberlen, for there can be but little doubt, that the ancients were familiar with an instrument, which in the principles of its construction and use was the same, though the knowledge of such an instrument does not appear to have been very extensive in the civilized nations, Yet it is certain that some of the Arabian Physicians were familiar with it, & it is mentioned in their writings But during the dark ages they were completely lost sight of, And it was

not until the time of the Chamberlains that they were discovered, and after a long period of secrecy made known to the world. The Forceps have been called the great Prime Mover of Obstetrics, and it is hardly possible to exagerate the importance of an instrument, which is so simple in construction, so powerfull for good and so easy of application, They are described as a "kind of pincers composed of two blades very similar to each other. And which are especialy intended to be applied to the head of the foetus" Those invented by Chamberlen were short and straight and could only be used when the head was low down in the excavation close to the perineum The modifications which his forceps

the work of Levret and Smellie, some of which have imperfectly accomplished the ends of their inventors. Others have been nearly destitute of utility and have fallen into oblivion.

In France the forceps which are most generally used are none other than those of Levret slightly modified. In England and in this country both the straight and curved forceps are used and recommended by high authority.

In a Thesis of ordinary length I can not go into a minute description of even those forceps which are most commonly used; I shall be compelled to speak of general characteristics and then take the other part of my subject.

The Forceps is composed of two pieces,

each of which is generally spoken of as [illegible] namely the blade, the handle and the lock. The blade is the part which is to be introduced into the mothers parts they are curved on their broad surfaces, the internal concavity of which is intended to fit the childs head, and the external convexity [illegible] to the internal walls of the pelvis. The anterior and posterior edges are curved to correspond with the axis of the pelvis. The blades have an opening in them called the fenestra which diminishes the weight of the instrument without much loss of strength and which is intended to admit the parietal protuberances.

The handles of forceps differ in length

according to the lever power desired. Some of these are curved at the end and can be converted into the blunt hook, the two parts of the forceps are alike except the lock; then one of the members usually has a pivot, and the other a notch or groove to fit it; the one with the pivot is called the male branch the one with the groove the female branch. It is difficult to say whose forceps are most used, those of Davis, Hodge, Wallace, and Smith, have gained a great reputation, but there are many others which have been extensively used, nearly all of them having many advantages in common, and some distinguishing merit claimed for it by the inventor.

But I must proceede now to their application, and this is difficult to describe, & so soon as I have decided that it is necessary to use the forceps, we should make a very carefull examination just before applying them in order that we may make a correct diagnosis of the exact position as the Child may have changed since the last examination. We must see that the bladder and rectum are emptied the instrument should be placed in warm water and oiled before used the hand to be introduced should also be oiled. With regard to which blade we should introduce first, the authorities differ, I think myself it is immaterial, but that the operator

should cause some difficulty. Plau Cazeaux & Baudelocque say we should always introduce the most difficult blade first, but that he generally introduces the posterior blade first, Tarnier says to always introduce the lower blade first. So we are led to infer that the posterior blade is usually the most difficult one and should be introduced first, but there is no universal rule. It probably depends somewhat on the kind of forceps used. In order to describe the simplest mode of introducing them, we will suppose the child's head to be in the left occipito anterior position of Cazeaux.
The woman may either be placed on her left side or in the dorsal position. Supposing she is on the left side

the lower blade of the forceps should be introduced into the left sacro iliac synchondrosis and the upper blade just beneath the right foramen ovale.
If we introduce the lower blade first we will take the instrument in our right hand, as we would a catheter, holding it diagonally across the breech of the woman, with the concave surface towards her, the blade pointing downwards and to the left, the handels upwards and to the right. The instrument held in this manner will correspond to the left obliques diameter of the pelvis and in its introduction it should not change from this direction. Two or three fingers of the left hand should be introduced into the left side

of the pelvis, towards the sacro sciatic ligaments, with the palmer surface upwards, untill it reaches the head of the child. The blades should then be passed along the palmer surface of the hand and fingers, and if the os be felt it should be carefully passed within it. Should the blade turn either toward the hollow of the sacrum or the foramen ovale, it should be partially withdrawn, and introduced again with more care, depressing the handles of the instrument gradually at the same time gently pushing it. When the instrument has been properly placed the blade is then given to an assistant while the other blade is being introduced.

Taking the other blade in the left hand, it in the same angle with the breech which the other blade made, only having the point turned upwards and to the right with the handles downwards and to the left: the operator should pass it along the palmer surface of his right hand which has been introduced to the head; when the instrument reaches this point the handles should be gradually raised and the instrument will slide over the right side of the childs head.

If the patient were placed in the dorsal position, her buttox should be brought near to the edge of the bed, and her lower extremities should be supported by two assistants who should stand at

each side. In this case the lower or posterior blade should be placed in the left hand, and held directly over the right groin, the point of the blade should then be turned directly back to the sacro-iliac articulation, the handle should then be gently depressed and pushed towards the median line the left blade is held in the right hand and is introduced by a lateral movement, the operator holding the blade over the left groin, introduces the point an inch or so, and then depresses the instrument bringing it close to the left thigh, making the blade describe a semi movement which brings it up to the foramen ovale and thyroid tubal

Thus I have described the methods in which the forceps are introduced in the two different positions of the woman. It is not my purpose to describe the various maneuvers which must be gone through with in their application to the childs head in the almost innumerable positions in which it may be found on account of deformity of the pelvis &c. But I have taken a simple position in order to explain how forceps are introduced, and have not time in this thesis to mention the various variations to the general rule. As to where the forceps should be applied I will say first that they should always be applied to the head of

the forceps. Some advise their use
in the pelvis in breech presentations,
but it is generally conceded that
the bones of the pelvis are too weak
to resist the pressure, and that it is
difficult to apply the forceps without
endangering the mothers tissues.
The question whether we should apply
the forceps in relation to the childs
head, or in relation to the mothers pelvis
is not decided. Cazeaux Hodge and
Ramsbotham, claim that they should
be applied to the sides of the childs
head if possible, though they admit
that this is very difficult in some
positions where the head is crowded
down tightly in one of the transverse
diameters. Leishman claims that

Baudelocque though an advocate of this theory, has practically abandoned it. Since he acknowledged in 1862 that he had for many years been accustomed however low the head may be to introduce the blades within each ilium, because they usually pass more easily in that direction.

Siebold and Busch, and many German Obstetricians teach that the child's head should be disregarded and the instrument applied in relation to the pelvis. In vertex presentations if when compression was desired, it were made in any other direction than the biparietal diameter it would increase the difficulty

The question as to when the forceps should be used, demands considerable experience and discretion to be always correctly determined.
It was once taught that we should not interfere with the powers of nature, till she had exhausted herself; but this leaves little power for recovery. Some teach that we should delay six or seven hours, and if the child makes no progress, we should then use the forceps. This rule is little better than the other. It will not do to be governed by time alone. In some cases this might be a proper time, in others it might be too soon, while in others it may be a fatal delay.

the most then in the first place
is the [illegible] constitution & the condition
of the patient as we find her. If
she has been exhausted by previous
illness we would of course expect to
interfere sooner than in a well develop-
ed woman who had been in good
health. We will generally be compelled to
give aid when the pains are subsiding
gradually, or have ceased — when
the spirits are failing, the countenance
anxious, and the strength giving way,
when there have been chills the pulse 100 to
120 or more, the tongue coated or dry
and parched — when there is great
tenderness of the uterus, or the vulva
with preternatural heat and tumefaction
of the vagina — whenever there is con-

ting delirium or coldness of the ex-
tremities, there are indications which
demand the use of the forceps, no
matter whether any set time has arrived
or not. But the symptoms just de-
scribed may be due to one cause, that is
failure of the vis a tergo. This though
is only one of the many causes which
call for their use, The forceps may
become necessary on account of some
minor degree of pelvic deformity
Any mechanical obstruction, either of
the hard or soft parts, or any
abnormal rigidity may call for their
use, The occipito-posterior and face
presentations may require them either
for rectification or extraction
Almost any case which demands

steady delivery may need them,
There are a few rare cases of Placenta
Previa, and of rupture of uterus, in
which they may be used. In breech
presentations, or in turning and deliv-
ering by the feet, the forceps may
be required to deliver the head in
order to prevent suffocation,
I do not think we should wait as
some recommend untill we are com-
pelled to operate in order to save the
life of an exhausted mother and
jeopardized child, nor do I think
that we should fly to the forceps
in every case of delayed labor,
but of the two, this is perhaps the lesser
evil,
Many of our most successful Practitioners

use them very often. Dr Hunt of Philadelphia in a practice of thirty years, averaged their use once in every seven cases, and in that period he did not lose a single case from the direct effects of labor.

I think as a rule it is safer to take middle ground, and then by carefully choosing the proper time and the proper cases, the forceps may be made the most successful, and the most useful instrument that is required in the practice of Midwifery.

2

A. D. 1879.

A Medical Thesis

on

Typhoid Fever

to

The Faculty of Physic

of

The University of Maryland

by

Edwin Zimmerman

in application

for

The Degree

of

Doctor of Medicine.

Feby 14, '79.

I chose ... for a Text
it has been the design of the author to
select one not only full of interest, but
one from the study of which we might
also derive much practical benefit.

Among all subjects none more full of
interest to the medical student & man than
the subject of Disease. And just in
proportion as disease is productive of
mortality, is it more interesting to the pro-
fession. For to investigate the nature and
discover the causes of diseases, and their treatment
our science and our art.

Now of all diseases, there is none which
deserves a closer and more rigid attention
of the medical man than Typhoid Fever.

Attacking, as it does the most gifted,

Fever; as, Enteric, Abdominal Typhus, and Pathogenic Fever. But none so appropriate as Typhoid proper. Typhoid signifies Typhus like, insidious in its onset, and endangering the system in a slow and protracted manner.

This disease prevails very extensively in this country, but not exclusively, for it is common in almost every quarter of the globe; neither does it respect age, sex, or color; occurring however in the younger class most frequently, and most fatally, in this climate, among the colored race.

Symptoms;— They are very slow in developing themselves, sometimes as long as a fortnight before it can be accurately ascertained whether it is Typhoid Fever or not. It comes on in such a slow and decided manner that the general health of the patient is seriously impaired before

he is aware of his dangerous condition.

In the vast majority of cases patients are unable to fix the date of their ailment.

So imperceptible is the beginning of this disease. It is, therefore, not easy to determine the duration of the disease. Some practitioners have laid down as a rule to this effect, that the disease is not thoroughly established until the patient takes to bed. This, however, is an arbitrary criterion, and not always accurate; for in the majority of cases this rule will hold good. There are examples, however, in which the patients have taken to bed before the disease had been fully developed,- sometimes on the first day of the attack; although this is rarely the case, and there is in most instances of this kind a probability that the disease came on in

such as to render that it was impossible to the patient and might have existed for some time previous to the prostration; on the other hand, patients have taken to bed subsequent to the development of the disease. Hence, no accurate rule can be laid down in regard to the period of the commencement of the disease.

It depends mostly upon the constitution and condition of the system at the time of the attack.

A more accurate rule as to the commencement of the disease is, when the patient has a chill, or chilly-sensation, with increased arterial temperature; this is a more accurate criterion, but it is seldom that the physician is called in when these symptoms make their appearance, and, consequently, the fever is generally developed before medical assistance is sought for, and

the physician is unable to ascertain the commencement of the disease. The development of the disease varies from one to ten days; the duration is about thirty days. The symptoms belonging to the forming stage appear in respective order: Chills or chilly sensations, recurring irregularly; Cephalalgia, the pain being referred to the frontal region; loss of appetite; mental irritability, with difficulty of exerting the faculties of the mind; nausea; vomiting; epistaxis; &c. Looseness of the bowels is especially important in diagnosing this disease.

Some peculiarities exist in regard to the fact that the patient will not, in most cases, ask for food or drink, but if offered to him he will partake of them apparently with great relish; this peculiarity can be accounted for only on account of the impression that the disease makes upon the

nervous system; in consequence of the poisonous condition of the blood, blunting, as it were, all the powers of exercising the mental faculties to express their wants. After the forming stage it will be convenient to arrange the symptoms according to the different anatomical systems to which they are referable. They are distributed under the following anatomical order:

As countenance and general aspect first,- at the onset of the disease there is no marked alteration in the countenance for the first few days; but at an early period the face generally presents a flushed appearance, afterwards the countenance becomes dull and listless, and an expression of stupidity which is more than dependent upon mental conditions.

The whole surface presents a flushed appearance, but the redness disappears momentarily on pressure.

This congestion of the capillaries extends all over the body, - from the face to the trunk and thence to the extremities. This capillary congestion is very marked on the hands and arms, - next in proportion to the face. Not unfrequently the conjunctiva is congested.

Nervous Symptoms: Pain in the head is generally a very marked symptom, becoming, however, less and less in severity during the second week of the attack. Pain in the back is of little moment, as it is sometimes absent, and is only present in the early stage of the disease. Delirium is generally a very prominent symptom, which makes itself manifest about the second week, although it may occur when the patient takes to bed, which is not unfrequently the case, while at other times it may not make itself ma-

first before the fourth week of the attack.

It depends upon the nature of the disease,- in some persons it makes a more decided impression upon the nervous system than upon others. Not unfrequently the patient talks incoherently, has a low, muttering delirium, the eyes are half open, and he is neither asleep nor awake; he gets restless and wants to get out of bed, but can generally be easily persuaded to lie down,- he soon renews his efforts, and it is often necessary that the patient be watched and prevented from getting up; he will answer questions at hap-hazard, and no reliance can be placed upon what he says. This delirium is caused by the morbid condition of the blood irrespective of the fever. In the second, third, fourth, and

subsequent upon the disturbed condition of the mind is made manifest in various ways:

The patient will not ask for drink, though his mouth be dry and designated. The creeping over the patient excites little cutaneous annoyance; he does not ask to have his position changed, though he may lie very uncomfortably; and even bed sores may occur from maintaining one position for too long a time; and in the more grave cases the pupils become dilated.

At the onset of the disease the patient complains of the want of refreshing sleep, but after a short time the want of sleep is not so appreciable on account of the deranged mental conditions, and he dozes more or less all the time, but does not receive

a healthful sleep; he is constantly in a somnolent state, but can generally be easily aroused from this half comatose condition. When spoken to loudly, but soon sinks back to his former condition. Coma occurs in the later stage of this disease, and is generally a fatal omen,- it is probably due to Uremic poisoning. Patient generally dies from asthenia.

The respiration and expiratory acts are often disturbed, frequently accompanied with a cough, more or less harsh and distressing, which is due to some pulmonary complication,- as Bronchitis, Pneumonia, ect.

Other nervous symptoms of unfavorable prognosis are picking at the bed clothes, body linen, or grasping at invisible objects in the air. Twitching of the muscles of the face, and

visible twitching of the tendons of the wrist are very unfavorable symptoms, and generally lead to a fatal termination. Paraplegia may exist from spinal irritation, but is a rare complication. The tongue generally presents a morbid appearance,- it may be simply furrowed at first, but soon becomes coated whitish or yellowish brown, which is often thrown off in flakes, sometimes leaving the tongue moist and in other cases dry; the tongue is protruded with difficulty in some cases, from the relaxed condition of the muscles of this organ, and also from nervous depression as well, and when protruded it is often withdrawn very slowly, and sometimes left lying on the lips seemingly unconscious of its protrusion,- the mental powers being

blunted and thus disclosing the suspension of voluntary action. Sordes collect on the gums and lips after the first week, especially in the more grave cases. The gums become very red and tender, and bleed on slightest pressure; this occurs in mild as well as in severe cases.

A rare but somewhat characteristic complication is inflammation of one or both parotid glands. It leads to notable enlargement and presents the appearance of ordinary Parotiditis.

But unlike the disease just mentioned suppuration takes place in the majority of cases, and more or less sloughing of the areolar tissue takes place; thus endangering the patient, and retarding convalescence.

This complication is not, however, to be considered as a critical event. The discharge of

[illegible] not unfrequently takes place into the meatus urinatorius externus. Vomiting is an occasional symptom in this disease, and is produced by the torpid condition of the stomach. Diarrhoea or looseness of the bowels exists in the majority of cases, and is a symptom of diagnostic value in this disease. The dejections have a yellow, ochre color, giving an alkaline reaction to litmus paper. Diarrhoea is generally in ratio with the amount of intestinal lesion. Although in some few exceptional cases constipation exists throughout the course of the disease, and feces retain their natural appearance, and at times it is even necessary to resort to an active purgative to correct this abnormal condition; thus showing a great contrast to

what is a more common diagnostic symptom.
The bowels are sometimes evacuated in the bed,-which is due sometimes to indifference and sometimes to paralysis of the sphincter ani. The involuntary dejections of the feces denotes gravity of the disease. Urine.— The urine is usually scanty; high colored, and of a high specific gravity, until the approach of convalescence, when it is increased in quantity, and of low specific gravity. Urea and Uric acid are absolutely increased, and the coloring matters are also more abundant. Albumen is found more or less throughout the febrile stage of the disease, and is due to some distemper of the kidneys that existed either previous to the attack of the disease, or from a peculiar condition of the blood disposing of its albumen

in the kidneys in an undue amount, and also as a result of congestion of this organ.

And again it is frequently due to Desquamative Nephritis in which we have the characteristic tube casts. The Urine is sometimes retained in cases of Typhoid Fever, and is owing to the blunted perception; the bladder often becomes largely distended, and frequently by the continued pressure of the retained urine upon the sphincter vesicae, like any other muscles under undue action, relapses, and the consequence is a constant dribbling of the urine. Hence, the practitioner should not omit to ascertain the condition of the bladder by manual examination of the abdomen, and resort seasonably to the use of the catheter when required.

It is sometimes necessary to use the catheter

several times a day. On the other hand the urine may be passed in bed, seemingly unknown to the patient,—this is not because the sphincter vesicæ has become relaxed, but because of indifference on the part of the patient, in consequence of the [illegible] condition of the mental faculties, and the loss of power of reasoning, on account of which all control over this organ is lost. The kidneys are sometimes congested and inflamed, sometimes more or less hypertrophied, at other times remaining perfectly pale, and often the uriniferous tubes become clogged up by epithelium casts. Inflammation of the Gall Bladder is a rare, but somewhat characteristic complication of this disease: often giving rise to morbid conditions of the biliary secretion, producing

fetus, which manifests itself by the deposit of the bile in the skin and conjunctiva giving rise to the characteristic yellow color of jaundice. The corpuscles of the blood undergo a change also, the red corpuscles being diminished in number and the white are increased, thus impairing the patient's general condition by the abnormal proportion of the blood corpuscles. Hemorrhage from the intestines takes place in a certain number of cases, and is often profuse, reducing the axillary temperature very rapidly, and the pulse at the wrist becomes very weak or absent.

Gurgling sound may be heard in the abdomen on pressure, and tenderness is felt on pressure, generally referred to the right iliac region.

Abdomen tympanitic is due to intestinal

gas, and when it continues syncope ensues, and symptoms become more distressing; and if hemorrhage still persists, death takes place from loss of blood.

Although death occurs from hemorrhage at times, it is only, comparatively speaking, in a minor proportion of cases; and its occurrence, according to Graves, and others, does not necessarily denote an unfavorable termination.

Symptoms referable to the bowels are pain on pressure, especially in the right iliac region; abdominal tympanites, and looseness of bowels, with the characteristic-yellow ochre colored dejections, are particularly diagnostic in this disease. Tenderness on pressure is due to inflammation of the Peyeran, Solitary and Mesenteric glands, which become co-sid-

enlarged. Ulceration takes place, often perforating through the coats and allowing the intestinal contents to pass into the peritoneal sack, and set up fatal peritionitis with all its acuteness; giving the patient most excruciating pain, and resulting in death: as peritionitis from perforation is almost certainly fatal. The Skin:- Of the symptoms referable to the skin of particular importance in diagnosing this disease are the eruptions.- The patient generally lies on his back with his legs fixed, slipping toward the foot of the bed, until the ninth day, when the Papules appear, dating from the time that patient took to bed. The average time of this appearance is about seven days. The eruption consists of

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Isolated papules generally found on the trunk of a rose pink color called by Louis, Critical rose colored spots. They are slightly elevated hence, papulae. They give a slight sensation of roughness to the finger when gently passed over them; they are oval in form, and about two lines in diameter; redness momentarily disappears on slight pressure; they are but few in number, often not exceeding fifteen or twenty; and as few as four or five in number. They are not limited to the trunk alone, but are found on the extremities also. Neither are they always present, nor does their number denote any severity of the disease, because they are present in the mild as well as the more severe cases. Miliary vesicles or Sudamina occur in the middle and latter part of the disease.

These eruptions make their appearance on the neck, chest and abdomen. They are not of so much diagnostic value as supposed by Louis, as they are present in some other diseases in which perspiration occurs.

These like the papulæ do not denote the gravity of the disease. Bluish spots of an irregular shape, from three to eight lines in diameter are found to occur in the mild cases more frequently than in the severer ones; they appear on the abdomen back, and thighs. Perspiration is of no diagnostic value in this disease, as it occurs in about half the cases that end fatally, and about the same number that terminate in convalescence. After perspiring, relief is sometimes experienced - it more frequently

takes place at night. As a rule the skin is hot and dry throughout the whole course of the disease. Gangrene not unfrequently supervenes in consequence of lying in one position for a great length of time, bed sores being only superficial. Sometimes the blood circulates very slowly, and a clot is formed in the arteries and obstructs the circulation, and death of that part takes place.

Epistaxis is generally present in the forming stage, and is generally of little consequence, but in exceptional cases it is so persistent as to baffle all medical agents, and is only remedied when we resort to mechanical means: circulation becomes more or less accelerated, pulse often as frequent as one hundred and twenty per minute, and denotes

danger in a geometrical ratio as it rises above this. Temperature is above par during the whole career of the disease. When the temperature in the axilla exceeds one hundred and three degrees, Fahr. prognosis is unfavorable. Patient becomes convalescent as the temperature declines toward the normal standard. Pathology.— Lesions of special importance in Typhoid Fever are principally limited to the small intestines— this characteristic lesion is present only in this disease, and is confined principally to the Peyer's glands, and that portion of the intestines in which these glands are situated; and it is these glands that present the greatest change of any portion of the intestinal tract. The condition of these

a rupture it may attain a considerable size and allow the escape of the intestinal contents into the peritoneal cavity, and fatal peritonitis follows. The amount of intestinal lesion is not necessarily dependent upon the severity of the disease. In favorable cases cicatrization takes place in these glands, commencing at the bottom by a film-like serpous tissue, which gradually thickens until the excavation is filled up.

This cicatrization is sometimes exceedingly slow, and gives rise to persistent abdominal symptoms. Sometimes this morbid condition of the glands may be limited to the large intestines, and at others may be confined to the jejunum and Duodenum; these are, however, exceptional cases. These ar

however, exceptional cases.) Enlargement of the Mesenteric glands accompanies the intestinal lesions – they become considerably enlarged due to a morbid product within these glandular sacks. Ulceration takes place in these glands, and in exceptional cases perforates the coats of the bowel and allows the intestinal contents to be poured out into the peritional cavity, producing fatal peritonitis.

The Spleen is sometimes found enlarged and congested. Ulceration of the Trachea and Larynx are rare, but in some cases characteristic complications. The walls of the Heart are often found soft and flaccid. In a certain number of cases congestion of the Lungs is found present. At times Cerebral congestion with a serious effusion into the lateral ven-

ticles and arachnoid cavity takes place.

The kidneys are often enlarged and congested, and the uriniferous tubes become filled with exfoliated epithelium. The Gall-bladder sometimes becomes the seat of inflammation and softening. The Fibrin and Albumen of the blood are diminished in quantity, and the corpuscles of the blood are abnormally changed - the white being increased and the red diminished in number.

Lesions elsewhere than in the digestive apparatus are of little importance, and are generally complications: hence I shall not deem it necessary to dwell upon them.

Causation. — From what can be learned by observation and investigation, Typhoid Fever appears to be generated by the efflu-

ria arising from decaying animal and vegetable matter, and animal excretal, or by the introduction of the germs of the disease into the system from human excretal which has been conveyed into water used for drinking and culinary purposes. It is endemic in every quarter of the globe. Young people are naturally predisposed to this disease, while aged persons are not so susceptible to it, yet they are by no means exempt from contracting it; but infants are rarely ever effected by it.

We frequently see privies and stables situated on high ground, and the contents are drained into the springs below, and thus the water becomes impregnated with the virus derived from animal excretal. That the alvine excretal are the media of communication is quite

probable. But it does not always seem to be produced by animal virus, as it may be spontaneously generated by a causative agent.

A great deal of speculation has been entered upon as to the contagiousness of this fever - it has manifested itself in various cases, and in different parts of the globe, that persons have contracted the fever from other individuals affected by this disease; although it is now believed by high authority not to be contagious.

This disease probably occurs more frequently, and in a severer form in consequence of animal impurities collecting in the water used by individuals for drink and other purposes.

There is a small town in this State whose inhabitants are more or less affected by this fever every autumn, and generally in

a very grave form, and the mortality of this fever exceeds that of all other diseases occurring in the town. Now the reason of its frequent appearance in that town can only be attributed to the impurities from the privies, stables and hog pens on the hill, and their contents washing down into the valley and collecting in the springs and wells, and thus rendering the water impure and unfit for use.

Persons living in the country and even near the borders of this town are seldom affected with this fever, which fact strengthens our belief that it is caused by these animal impurities collecting in the water, and producing in this way an active medium of communication of this animal virus into the system. The period of incubation is about

two weeks subsequent to the introduction of the germs of this disease into the system.

Diagnosis.— Typhoid Fever is to be diagnosed more particularly from Typhus, and remittent fevers. Typhoid Fever is developed gradually without any marked remission. It is known from Typhus by the presence of rose colored spots on the chest, abdominal tenderness, diahea, epistaxis, ect, which are very important diagnostic symptoms, and are of all importance in discriminating this disease. This fever has various complications of which I do not think it necessary for me to enter into detail. Although Typhoid Fever is generally easily diagnosed, it is in some cases so complicated that even the most experienced practitioners are puzzled

as to whether it is Typhoid Fever or not.
Prognosis is generally favorable, although the mortality is great in some instances and an accurate Prognosis can not be given until the patient is nearly well, because, perforation of the bowel may take place at any period of the disease, as it is not limited to the height of the fever, and will sometimes take place when the patient is convalescent, or even apparently well, and peritonitis is set up with all its acuteness, and death closes the scene.

Prophylaxis.— This important part of the subject is full of interest, and well deserves our notice in connection with this disease.

Typhoid Fever is a disease of zymotic character, due to unsanitary local causes, and the

particular cause can in nearly every instance be ascertained and prevented, if due pains be taken.

A great many deaths from this disease are due to reckless or ignorance. It is evident that this fever has its origin from foul air arising from local conditions of filth, and from animal impurities collected in the water. It is solely in consequence of the foul air arising from animal excreta and defective sewerage, as well as neglect to sanitary means generally that this disease makes itself so manifest in some of our large cities - and not only large cities, but even in our country towns and villages.

We need not ask the question, how long will this disease prevail in localities thus infected, for it will continue to search out its victims from those whose constitutions are

two, three or four feet deep, and many even much deeper called privies, probably amounting to forty or fifty thousand in a city like Baltimore, it affords sufficient evidence of the means by which this animal excrement vitiates the air we breathe, and literally soaks through the earth and comes in contact with the water, and renders it impure and unfit for use. In our country towns and villages we often see the houses built down in the valley, and their privies, ect. on the more elevated ground, affording drainage into the springs and wells below. I could name quite a number of just such instances that are evidently the source of disease, and all of which might be prevented by proper sanitary measures. If defective drainage were

drainage by proper drainage, and the effete matters that originate from stagnant water courses not properly attended to and prevented from becoming stagnant many of the attacks of this disease would be prevented.

And again, if superficial holes called privies were sunk deeper, so as to bring their contents below the water supplying the city, this excreta would by such means be prevented from mixing with the water and rendering it infectious and thus acting as a media to transmit this morbid product into the system, and would prevent the occurrence of ill, if not fatal consequences.

The suppression of the epidemic of Typho-Malarial Fever in South Baltimore, in the year 1875, by a total abstaining from the use

[illegible] this disease.

To prevent the occurrence of this malignant fever we should resort to every possible sanitary means, and diligently correct the many defects that prove to be such fruitful causes of this disease.

Thereby we may, by adhering to Nature's laws, be enabled to prevent much suffering and many ills. Frequently we are enabled to trace the origin of Typhoid Fever to filthy cellars, which are the receptacles of various gases permeating the floor, carpets, etc, and infecting the family with this disease.

All this could be prevented simply by proper ventilation and sun light, and by using some disinfectant, as lime, and the removal of the filth contained therein.

Our sitting and sleeping rooms should have light & air.

Both of the spread of this disease can generally be prevented in a family or community by keeping the sick room clean, and well ventilated with pure air, and by individuals in the room being careful not to breathe the morbid exhalation of the sick.

We should always pay strict attention to the best sanitary laws, since it is of such importance in the prevention and treatment of this disease, and is the most efficient prophylactic means we can employ.

Treatment. — Curative agents to arrest this fever and shorten its duration are not as yet at our command, as it seems to be a self limited disease, and no known medical agent possess any specific influence in cutting short the course of the disease.

Medicinal agents are but mere palliatives in aborting this disease. Certain remedies have been highly spoken of by some, as possessing the power of cutting short the fever: such as large doses of quinine or opiates. These are very beneficial to allay the great heat of the system, and febrile excitement but have no marked influence in cutting short the duration of the disease. The wet sheet, a well known Hydropathic treatment has been used with marked relief. Sponge bath is also of marked benefit in the first stage of the fever, when the skin is hot and dry.

Calomel has been spoken of by some as being an abortive agent in the first week of the attack. In the use of baths, no rule can be laid down to be followed, but the Physician must

be guided by the effects that it produces on the patient that is treated - if the patient becomes depressed by its use give him some stimulant, as wine or brandy. Veratrum Viride or Digitalis are used to reduce the temperature of the body and lessen the heart's action.

Sulphurous and Hydrobromic Acids are useful as refrigerant agents, and to correct the superalkalinity of the blood, which is generally more or less marked in this fever, and they are said to possess the power of destroying the germs of this disease, if they exist in the system. Carbonate of Ammonia is an excellent diffusible stimulus to arouse the patient in low conditions of this fever, and also to prevent stasis of the blood in the small

vessels; but it can be properly used only to a limited extent, as a superabundance of the blood already exists, and by the unguarded use of this agent this abnormal condition of the blood is increased, and ill consequences may result.

Musk is used by some to reduce cardiac obstruction. In low forms of Typhoid Fever the patient may suddenly become prostrated, in this stage there is a special calling for some of the diffusible stimuli. - Aether is indicated when these symptoms make themselves manifest, and has been used with most encouraging results.

Hydrate of Chloral is the most reliable hypnotic agent we possess to insure healthful sleep, and allay nervous irritability.

Turpentine is an invaluable emetic agent when certain symptoms appear as when the coating of the tongue comes off in flakes, with abdominal tenderness attended with diarrhea. Turpentine is particularly indicated in this stage of the disease.

Cephalalgia is generally relieved by the application of ice to the head. The body of the patient should be kept clean and dry to prevent those parts covering bony projections from sloughing or forming ulcers. When these spots appear red and sore they are often relieved by washing them with brandy and water.

Opiates are used to allay febrile excitement and produce sleep.

If the patient be delirious and talks

incoherently, and seems anxious to get out of bed, which tends to prostrate him, give an opiate, if this should not act sufficiently; Tartar Emetic may be used, and thus generally fulfills all indications; should constipation demand treatment it is best not to use purgatives; but better use an enema, as purgatives might cause perforation of the bowel in the seat of the ulcerated glands.

Astringents and opiates are used to correct the diarrhoea. Hemorrhage from the bowel should be treated by astringents,- Tannic or Gallic acids, Acetate of Lead, and the preparations of Iron are the proper agents to correct the hemorrhage. General bleeding is rarely

necessary in Typhoid Fever. Good hygienic treatment is of much importance in this disease, the patient should have pure air and cooling drinks as ice water, lemonade, barley water, ect. Food should consist principally of broths, and in guarded amounts. The patient generally has a good appetite during convalescence, and if not very careful will take more food than the stomach can digest, hence, food may be taken frequently, but in small quantities. Typhoid Fever is a self-limited fever, and depressing in its character, so that good nourishing diet and stimulants are most valuable agents in low forms of this fever.

Many patients have been brought, as it were,

if a regular routine practice, as there are no two cases exactly alike in every part of their course. Since the proper mode of treating this fever depends wholly upon the skill and power of discrimination on the part of the medical attendant to administer at the right time the proper medical agents necessary to combat the symptoms as they arise, and thus, by the well advised rule of expectant treatment the physician will be able in the majority of cases, to bring about good and satisfactory results.

2

Laparotomy

Wm A Moale Jr

Laparotomy

The future results of surgical interference with the contents of the abdomen are full of interest. It is in this direction that modern surgery is making its greatest progress, and attaining successes which compare favorably with the most brilliant procedures of the past. Though the tendency of the day is toward the adoption of more conservative modes of treatment in many departments of surgery, the rapid advances in the science of pathology have divested of their terrors, and

rendered simple and often most successful abdominal operations, which a few years ago would only have been undertaken in emergencies of the most desperate character, and then scarcely with the hope of a favorable termination. It is not long since wounds of the peritoneum were regarded as in the highest degree fatal, and it was only by careful observation that the great cause of trouble was brought to light in recent years.

Investigations such as those of Tyndall in regard to the sources of contamination in the air, and the detection of germs mixed with other impurities serving to call into life diseases which often cause defeat and failure in the practice of the most skillful, have led to the adoption of precautions, which if faithfully carried out may give even better results than the most sanguine now hope for. There are other measures the neglect or observance of which must in a great degree control the result

And these I think may all
be summed up by a statement
of the golden rule of surgery
viz. strict attention to cleanliness
and careful drainage.
And nothing offers to accomplish
these Ends so Effectually as
Lister's antiseptic Method, not
carelessly carried out, but
with that attention to minute
detail which he demands, and
which it is obvious must be
observed, if we mean to give
his plan a fair trial. Conjoined
with this there must be a careful
guarding against the escape of blood
and decomposing matter into the

abdominal cavity, and its immediate removal should such an accident occur. The wisdom and value of these rules are conspicuously shown in the history of the modern operation of ovariotomy. This is now so firmly established among the major operations of surgery, that it will only be needful to refer briefly to the statistics, which may be obtained from any of the more recent surgical works. Every year has reduced the percentage of deaths arising from what not many years back was regarded by the

most distinguished Surgeons of modern Times as a very unpromising Operation. In 1857 Spencer Wells performed his first ovariotomy, and has since published the records of 900 cases, only 221 of which were fatal. He expresses the opinion that the mortality may be reduced to 10 p.c.. Keith of Edinburg in 1845 recorded 50 cases and only 6 deaths But these signal triumphs are not the ones ones let us hope to be

achieved for there are many other conditions in which abdominal section may be made available for the relief of suffering, and the preservation and prolongation of life. Gastrotomy for the removal of foreign bodies from the stomach has also been attended by favorable results. Of 12 instances in which it has been made use of it has certainly been successful in 7. The histories of the remaining 5 cases being open to question. On the other hand. The operation of gastrostomy, or the

Establishment of a permanent gastric fistula in cases of oesophageal obstruction, has given most discouraging results. It has been performed heretofore in only two classes of cases, those arising from closure of the oesophagus by malignant growths, and in stricture as a result of swallowing hot or corrosive liquids. The records of 34 cases are to be found, all fatal except 2, those of Trendelenburg, and Vermeil. But after carefully reading the history of many of these cases, I am led to

the conclusion, that the result
can not be attributed to the
intrinsic dangers of the op-
eration itself, for it seems
to have been usually under-
taken, only after the patient
was reduced to the lowest
Ebb by starvation. Of those
suffering from malignant
disease, another plain cause
of death was blood poisoning.
Terrier's case however af-
fords us some Encouragement.
He realized the importance
of a prompt use of the
resources of surgery, and

his patient who was threatened with starvation from traumatic stricture of the oesophagus, not only restored but improved in health. Notwithstanding the vast success attending this operation it has many advocates on the ground that it may be made the means of saving the patient from the torments of hunger and thirst, and rendering more endurable the last moments of his life. The pain of the operation is by comparison with that which the sufferer must otherwise endure so slight that it need not deter the surgeon. Do not these facts teach us, that the

operations is not to be found in the great liability of the peritoneum to take on fatal inflammation, but that it ought rather to be sought in the nature of the disease for the relief of which they are undertaken? The propriety of resorting to surgery for the treatment of the conditions, to which I have referred, seems to be pretty well determined. But in regard to laparotomy opinions are various, and by no means uniform. Yet some of its most able opponents in former times have become its warmest advocates. Jonathan Hutchinson, in the Lond. Med. Times & Gaz. of Apl. 1858, in a paper Entitled "Is the performance of Gastrotomy for abdominal Obstruction ever justifiable?" gives as his reasons for so

posing the operation:
"1st. that it was seldom successful and that out of 50 cases reported up to that time in England, he had knowledge of only 3 recoveries. And this did not cover the whole ground, for he made no allowance for the fatal cases not reported, which would probably double the number. The reason for this great mortality being the late hour at which the operation was performed, when mortification of the intestine was already commen-

ing, and peritonitis had declared itself 2nd. The extreme uncertainty of diagnosis and 3rd. That although these cases almost never recovered after gastrotomy, they not unfrequently do if let alone." In proof of this he gives a circumstantial account of a patient of his own, who had all the symptoms of intestinal obstruction. In consultation with several other surgeons he was the only one who favored gastrotomy. The result proved the wisdom of his colleagues. The woman recovered, and the

was most probably, he thought,
a case of atony of the bowels.
In 1845 he makes the following
statement "I would briefly
record my conviction, that
any one, who will Examine
carefully the Evidence for and
against, will come to the
conclusion, that obstruction
for the relief of intussusceptions are not
only warrantable, but in a
large number of cases
they are demanded"
On what was this change
based? Our means of diag-
nosis are the same. The same
uncertainty much at times

perplex the surgeon as in former days. But the first objection can not now have the same weight, for as we have seen since abdominal operations have been multiplied, it has been proved, that if the peritoneum is in a healthy condition, and the patient not too much debil-dated the mortality is greatly lower in these operations than was formerly supposed. Ashurst gives the following table in the last edition of his surgery showing the result in 123 cases of laparotomy

Operations for	Cases	Recov.	Died
Volvulus	10	3	7
Strangulation commencing after herniotomy or taxis	14	5	9
Invagination	31	10	21
Foreign bodies, impacted feces &c.	5	4	1
Prolapsus of small intestine thro' rupture of the rectum	2	—	2
Strangulation by bands adhesions or diverticulum	44	9	35
Obstruction from retroverted uterus	1	1	
Tumors stricture ulcers &c	10	3	7
Internal hernia and ileus	6	2	4
	123	37	86

The following is a collection of 33 cases by Adelmann

	cases	re	died
Volvulus	4	2	2
Strangulation continuing after reduction of hernia	7	5	2
Invagination	5	2	3
Foreign bodies	3	2	1
Prolapsus of tubes through rectum	2	0	2
Strangulation by bands	8	2	6
Tumors &c	4	2	2
	33	15	18

Though all the cases in this collection are probably included in the table of Ashurst they differ so decidedly that I introduce them both

In these debilities no distinction is made between acute and chronic cases. In the latter we are not confronted by nearly the same difficulties as in the former. It is in acute cases that discrimination of the cause is often impossible, and in which the responsibility of operating is so great. Nor is any distinction made between children and adults. If we exclude all cases of a chronic nature, and invaginations, which it will be more convenient to con

sider by themselves. We have left in the first table 77 cases of which 20 or 26 p.c. recovered and in the second 21 cases of which 9 or 43 p.c. recovered. Again this collection contains no doubt many instances in which the patients had not the advantages of modern treatment, and many in which the operation was done only as a last resort, when the patient was already moribund.

It is only needful to read the particulars of many of the cases reported in the journals some years back to discern that this was very frequently the case. From these facts I think it would be fair to conclude that the figures given by Ashurst do not do justice to Laparotomy and that its results are more favorable than he supposes. Let us now examine the results of non interference after the resources of medicine have been tried.

In 24	cases	rep by	Hinton	9 rec.
59	"	"	" Haven	10 "
49	"	"	" Smith	7 "
135	"	"	" Duchaussoy	29 "
367				55

These were all cases of intussusception. Here again the same confusion exists. Acute and chronic cases, children and adults all classed together. We shall see farther on the special need for making the latter distinction in invaginations, and by remembering that age has an important bearing upon the prognosis, we may in a great measure account for the remarkable differences in the number of recoveries reported above.

Taking these statistics for what they are worth, we find that out of a total of 267 cases, which were treated medically 55 recovered or about 20½ p.c., whereas of 31 cases operated upon for invagination 10 or 32 p.c. recovered. We have no means of knowing accurately the number of deaths as compared with the number of recoveries in cases of obstruction arising from other causes than intussusception, but we may safely conclude that the mortality is very large, and the cases terminating in recovery few even when

compared with the work of natures efforts in inoculation as given above. If we examine our tables we find that in the first 26 p.c of such cases recovered after operation, and in the second 43 p.c.. If these figures could be relied upon proof would no longer be needed, and we might claim for laparotomy its legitimate place among the resources of surgery.
Let us now consider children & adults separately.
Obstruction in children is due almost to a single cause in this exception, leaving out of consideration of course congenital deformities. It may be either acute or chronic. The causes of it

great frequency Cases in life are found in the anatomical peculiarities of the intestines, and the proneness to intestinal disorders of different kinds When it is Chronic the occlusion not being complete, and there is reason to believe that adhesions have not taken place, and that there is no strangulation the result of the Hutchinsons and the Marsh cases are sufficient to Encourage an operation. Mr Hutchinsons case was that of a child 2 yrs of age in whom the intussusception had tackled one

month without strangulation
If the invagination was easily
found and reduced, and
the child made a rapid
recovery without the occurence
of peritonitis (L. Lancet Nov 22-173)
In Mr Marsh's case the
child was 7 mos. of age, and
the intussusception had
lasted 13½ days. The opera-
tion was successfully per-
formed, and there was no
peritonitis (L. Lancet Dec 18th 1875)
Should these cases be left
to nature they can have
but one termination death
from exhaustion, the child
gradually wasting away

This being the case there is no choice in the matter, and the prospects of operating cannot be doubted, and the sooner the better. If it is acute our cases is not so clear. Yet even here I think an operation is justifiable. Smith of N.Y. reports 49 cases in which the time of the occurrence of death and the number of recoveries was as follows

2	Died 1st day	1	Died 8th day
6	" 2nd "	1	" 10th "
14	" 3rd "	1	" 14th "
2	" 4th "	1	lived 1 week
5	" 5th "	1	" 6 "
2	" 6th "	3	time not given
2	" 7th "	7	recovered

The average duration of the fatal cases of complete strangulation was 3.7 days, and no fatal case in which the strangulation was complete survived after the 8th day. They who recovered did so by the sloughing of the bowel, and this is the only mode in which we can reasonably expect a favorable termination to take place. Occasionally the symptoms gradually abate, and restoration takes place without the expulsion of fragments of intestine. The ages of those who recovered

were 5-6-6-9-11-12-12 yrs, and one not given. We see from this, that very young children have not the strength to bear them through so trying and tedious a process as separation by sloughing of the imprisoned portion of bowel. That success has not attended this grave operation in very young children heretofore is true, but then it has been performed too late, when the child was already much weakened and death imminent. In Mr Hutchinson's last case the child was

6 mos old an acute case, but operation was postponed until the 3rd day, and the child died in 6 hours of peritonitis. No doubt the difficulty of obtaining the consent of parents would be great, yet if it could be obtained early enough, I think we would be doing the best for the child if we were to perform laparotomy, which dangerous though it may be is far less so than natures means of cure. In children over 5 yrs. it would seem that the chances of recovery are

decidedly greater and perhaps it would be better to abstain from an operation. Obstruction in adults may be acute or chronic, and may arise from a variety of causes. When acute the principal causes are

Intussusception
Internal strangulation
Twisting of the bowel or volvulus

The only cases in which there is a reasonable hope that nature can afford relief is in intussusception, and in those rare cases of ileus and paralysis or atony of the bowel. In all other varieties

modern opinion seems to favor an attempt to afford relief by opening the abdomen, searching for the cause, and endeavoring to remove it. As regards intussusception the impression is quite general that adults do best when left to themselves. This does not accord with the statistics which I have quoted, but I believe it impossible to form a definite opinion from such a slender choice of facts. Possibly it the cases occurring since the adoption of the antiseptic method, and done in accor-

dance with the rules which guide ovariotomists, could be tabulated & worked, & however though they might be, they would afford us valuable information, and cause the matter to wear another aspect.
In the meantime how are we to be guided?
Mr Bruton found from an analysis of a large number of fatal cases, that 43 p.c were due to intussusception, 31½ p.c. to internal strangulation, 17½ p.c. to strictures or tumors, and 8 p.c. to volvulus. Supposing it to be desirable to differentiate

between invagination and other causes of obstruction much may be said of the difficulties of diagnosis. Yet a careful study of the symptoms will in most cases lead us to a discovery of the true condition of affairs. That this is so, is proved by the fact, that we have no account of an operator upon opening the abdomen finding himself mistaken in his diagnosis. It may have happened for it is not every one who is willing to give science the advantage of his errors as well as his

trumpets. What then must we do? Abandon to their fate all other acute cases constituting 99½ p.c. of all those who die from these causes, and deprive them of almost their only chance, or incur the risk of finding an imaginated bowel, which we had not made out, but in operating for the relief of which we may after all be doing the best in our power. Certainly no one could be blamed for such an attempt, and I believe that it would be fully justifiable. Chronic cases are fraught with less difficulty.

Chronic intussusception in the adult as in the infant without doubt calls for the surgeons aid. Other causes of a chronic nature are usually found in the lower portion of the descending colon, and would rather indicate colotomy than laparotomy There are cases of not unfrequent occurence, where foreign bodies become lodged in the ileo cæcal line or vermiform appendage in which life has been saved by an incision through the abdominal wall. Tumors of the bowels are generally malignant, and best relieved by a portion established above their site, the nature of these growths

That the future will afford encouragement to those, who are endeavouring

to push the claims of abdominal surgery is an opinion now widely held and Sir James Paget, at a meeting of the Royal Med and Chirur. Society (2 Dec 18th 1875), said that the operation was destined to become as prevalent and valuable as ovariotomy. Possibly this is claiming too much, but we may indulge the hope, that the time is very near, when it will become the means of saving many lives, and supplementing the resources of medicine

At what period ought we to advise the operation? The universal opinion appears to be, that if it is to be done at all, it should be before the patient is prostrated and weakened by the disease, and if possible before inflammatory changes have taken place. The amount of delay justifiable would of necessity differ in different cases, but it would usually be not more than 12 or 18 hours. The lack of a certain amount of boldness may cost the patient his life after he has

submitted to a tardy operation
In chronic cases we have of
course more time for delib-
eration and thought. As regards
the best mode of operating a
few words will suffice. The
incision should be made along
the linea alba below the umbilicus, cutting through
layer after layer until the
peritoneum is exposed, care
being taken to stop all hemorrhage
as it occurs. When bleeding has
ceased the peritoneum may be
opened, and the first portion of
intestine distended with gas,
which offers itself, followed
downwards until the obstruc-

tion is encountered This is
then to be libirated, torn, di-
vided, or enlarged as may
be required. Should it prove
to be a tumor, the Estab-
lishment of a fecal fistula
may be necessary by making
an opening into the tube, and
stitching the edges of the wound
to the external incision If a
foreign body be found to
be the obstructing cause it
must be removed, and the
opening in the bowel treated
in the same manner The
wound in the belly wall should
then be closed by wire sutures.
except in the instances just

mentioned, when that portion to which the gut has been attached should remain open. Opium should then be administered, and the usual treatment followed out. Above all let the patient be operated upon antiseptically, and the after dressing and management of the wound, and all his surroundings be in accordance with the rules to which I have adverted before

A Thesis

on

Epilepsy

by

Herbert Harlan.

Feb. 14. 1879.

Epilepsy.

The difficulties facing an undergraduate medical student about to write a thesis on "some subject connected with medical science" are both fancied and real. He has a multitude of subjects from which to choose, and at first looks for one on which he can be at least a little original, and perhaps in his ignorance vainly imagines that he will be able to contribute something to the medical store of knowledge. But as he grows a little wiser and comes nearer to the 15th of February he concludes that the most he can do, and

The most that is expected of him, is to use his own limited experience in drawing sensible deductions from the accumulated wisdom of older and more experienced heads. And after having chosen his subject and given it study and thought the unwelcome suggestion presents itself, that his labor is in vain, his work doomed to oblivion, and that he may consider himself lucky if even the title is ever perused. But he has at least the satisfaction of knowing that he has done his best on a required duty and whatever solid information may have been gained will surely never come amiss to him in future life, and

with this he must fain be content.

Some such motives as these alone have influenced the writer in selecting for his subject a malady afflicting all classes of society, from the most ignorant negro, who on inquiry regarding his ailment laconically and expressively answers "fits", to the wealthy refined and intelligent, who acknowledge with reluctance that they are troubled with nervousness and sometimes have fainting spells, and which the physician almost instinctively feels to be epilepsy and knows that he must mention it only by some other name.

Regarding the Etiology of Epilepsy little is known. Organic lesions are occasionally found, but as a distinct disease it is rather ranked as functional. While the innumerable remote causes to which individual cases have been referred lead us to question strongly if intemperance, syphilis, mental disturbance, excessive mental work, some allied neurosis in parents, uterine disturbances, sexual excesses, masturbation, etc., etc. are not rather coincidences than true causes of the affection under consideration.

Especially is this the case when

we reflect that only a minority of cases can be referred to any etiology, however remote. And may not the organic changes occasionally found in the brain and meninges be rather the effect of repeated fits than the cause?

Symptoms:-

In the majority of cases the paroxysms come on without premonition. In a few there are well marked indications of an approaching attack, such as pain in the head, vertigo, flashes of light, sudden blindness and many others. In the same individual however the same prodro-

mata usually precede. The time of the premonition is generally only a few seconds but may be for a much longer period.

Of the actual attack, there are two chief varieties. The epileptoid and the true epileptic convulsion The Petit Mal and Haut Mal of the French. But the two vary so much, and so merge into each other with no distinct line of demarcation, that numerous subdivisions have received names and been described by different authors.

The milder form is characterized by sudden loss of consciousness,

coming on without warning and
lasting only for a few seconds.
Sometimes there are slight convul-
sive movements of the face and
limbs. But if standing the pa-
tient does not fall, and after
the attack usually resumes his for-
mer occupation of walking or
talking or whatever it may have
been as if nothing had happened.
He has no recollection of anything
unusual having occurred.
Occasionally there is no absolute loss
of consciousness, but merely a mo-
mentary vertigo with loss of con-
trol of the voluntary muscles.
These attacks may be premonitory

of the more severe epileptic seizures, and seem rather more frequently to lead to dementia or mania.

The phenomena of the true epileptic fit may properly be described under three stages.

1° The attack is generally ushered in by a peculiar and characteristic cry, immediately followed by absolute and instantaneous loss of consciousness. The patient falling violently to the ground. This is accompanied by a violent tonic spasm of all the muscles. breathing ceases, - the eyes are turned up or in, - the face becomes first livid, and then flushed, - the pupils

are dilated and there is a peculiar twitching of the eyelids.

II° The transition to the second stage is abrupt. Unconsciousness continues with severe clonic spasms. There are frightful closures of the jaws often causing biting of tongue or cheeks, violent convulsive movements of the body and limbs, profuse perspiration and sometimes involuntary discharge of urine or feces.

III° The last stage is marked by a gradual return to consciousness, and a cessation of the spasmodic movements. Vomiting often takes place and after the return to

consciousness. The patient is exhausted and drowsy, complains of headache and in many cases falls into a heavy sleep or stupor, and is often out of work for several days.

Diagnosis:-

This is not difficult when the attacks can be seen. Epilepsy has to be distinguished chiefly from hysteria, reflex convulsions, uraemia and feigned epilepsy, and the disease has a sufficient number of characteristic symptoms to make it easily recognized by one familiar with it.

Prognosis:-

A few cases get well. A few

more get apparently well to suffer relapse after a time. In a majority of cases the most that can be done is to hold the paroxysms in check by continued treatment.
An uncomplicated epileptic fit rarely ends fatally, but the mental faculties are liable to become affected after a long continuance of repeated attacks.

ment;-

During a fit little can be done more than to put the patient in the best position and restrain him from injuring himself. A soft wedge of some sort between the teeth will

protect the tongue. After the fit he should be placed in a comfortable position and allowed to sleep.

In the intervals the hygienic management of the patient is highly important. He should have nutritious diet, be well clothed, and take regular exercise in the open air. All vicious habits as intemperance, masturbation, excessive venery, etc. should be checked. Of the innumerable specifics that have been used in this disease those which have given the most universally beneficial results are the bromides, particularly

the potassium salt though those of sodium and lithium are nearly equally efficient, the preparations of zinc, belladonna and strychnine, or a judicious combination of these. The bromide of potassium must be given in large and frequently increasing doses, and until as much as forty to fifty grains have been given three times a day the drug has not been fairly tested. When it is not efficient alone, the best results are often obtained by combining it with small doses of the bromide of potassium, oxide of zinc, or strychnine. When "bromism" occurs as an

unpleasant result of treatment
the drug producing it may be
discontinued and, after a time,
again resorted to, when its bad
effects shall have ceased. If
in these cases having a tendency
to attacks at more or less regular
intervals, as of the day or week,
Quinia has proved signally bene-
ficial.

Respectfully submitted.

Herbert Harlan.

A Thesis

on

Yellow Fever.

by

Nathan R. Gorter.

Feb. 14 1879.

The time draws near at hand, when in accordance with your time honored custom, it becomes my duty to submit to you a dissertation upon some subject connected with the medical science.

Aware of my inability, and the limited amount of knowledge that two years study can bestow, it must be confessed that it is not without some misgivings, I enter upon this task.

Men have made a certain theme their life study, and have written without saying any thing new; then how should it be expected that we of so little experience would not fall in to the same old beaten tracks of those that have gone

before, and impose upon your patience by subjecting you to ~~the~~ identical views, upon the identical subject. But there being no alternative, I beg leave to call your attention to my subject, which in itself claims your consideration -

Yellow Fever.

Definition - A very acute and dangerous febrile affection, accompanied by vomiting of black matter, with jaundiced appearance of skin in 2d. stage, from which it derives its name -

The question whether this be a distinct species of fever has been much mooted. It has been considered, on one hand, as identical with typhoid; and

on the other, with remittent fever.
But now that typhus & typhoid are so thoroughly known it is evident from the differences in their symptoms and laws that these fevers are entirely distinct from yellow fever. Few if any, at the present time, contend for the identity of yellow fever with either of the two above mentioned.
The theory that yellow fever and remittent fever are identical, that both originate from the special cause commonly known as malaria has been more tenaciously adhered to, and this doctrine is not even at this day altogether abandoned. That the two diseases may exist in combination is undoubtedly true.

It is also true that remittent fever at certain times and places assumes more or less of the character of yellow fever, so that the two affections are not easily discriminated; hence much confusion has arisen, and frequently they have been confounded. But that they are essentially different diseases, each being a distinct species of fever can be conclusively shown.

Anatomical Characters. The morbid appearances which are most frequent are situated in the stomach and alimentary canal, the membrane of which becomes thickened and softened and in the liver which is sometimes yellow, and sometimes

is in a state of fatty degeneration.
The disease seems to have no special anatomical characteristics, the lesions which occur are contingent or incidental. We cannot, therefore, with our present knowledge, look to morbid anatomy for a satisfactory explanation of the phenomena observed during life.
Clinical History. An attack of yellow fever is usually abrupt. In a minority of cases it is preceded for one two or three days by languor, lassitude, loss of appetite, pain in the head and chilly sensations. The attack is generally denoted by a chill with or without rigors, the chill in most cases is of short duration

tensity.

Febrile movement succeeds which varies in intensity in different cases; it is sometimes quite intense oftener moderate, the temp. of the surface rarely being much raised, and the pulse seldom exceeding 100. The tongue is moist and more or less coated. Vomiting occurs in a certain proportion of cases early, but it rarely is a prominent symptom until a later period. Tenderness on pressure over the epigastrium is more or less marked, and the bowels as a rule are constipated. Cephalalgia, the pain especially referred to the supra-orbital region, is usually present and is sometimes intense. Frequent pains in the loins, and

pain in the lower limbs, especially in the calves of the legs, are prominent symptoms. In the frequency of lumbar pains this fever bears an analogy to small pox.

The mind is generally clear, but occasionally delirium is manifested, rarely violent or active, and sometimes mirthful. The eyes are reddened, irritable, watery or tearful; this is quite constant, and so marked as to constitute a diagnostic feature. Otherwise the organs of sense are not disturbed.

The febrile movement continues for a period varying from a few hours to three days. Then follows either a marked abatement or, more gener-

ally, entire cessation of fever. =
In mild cases, convalescence takes place at the end of the first stage.
In grave cases the cessation of febrile movement is deceptive; the pains &c may cease, and the patient may feel as if convalescence had begun. But after a period, varying from a few hours to 24 hours, or longer, new symptoms become developed, more distinctive of the affection than those occurring during the febrile paroxysm. The pulse in this stage sometimes falls below the normal frequency; it has been known to fall as low as 40, & even 30 per minute. The character of the pulse shows deficient power of

the circulation. The surface is usually cool, especially of the parts of the body which are exposed.

Of the symptoms referable to the digestive system, those most characteristic pertain to the stomach. Vomiting occurs, if not already present, and, if present, becomes more prominent. In a large proportion of fatal cases, and in a few of the cases ending in recovery, the black vomit occurs. This, taken in connection with other symptoms, is pathognomonic of the disease.

Prior to the black vomit, there is vomited a matter which Blair terms "white vomit". The former, which consists of blood changed by

action of the gastric fluids, rarely occurs until the first stage is passed; it occurs at variable periods during the second stage, but generally not until towards the close of the disease. It generally ceases for a period of from 12 to 24 hrs before death. The frequent occurrence of albumen in the urine has of late enlisted much interest. Blair's statement, that almost invariable albumen exists when the disease ends fatally, is based on examination in more than five hundred cases. Yellowness of the surface of the body, whence the disease derives its name, occurs in the second stage. The conjunctivae becomes yellow, and this, with the red-

next gives to the eye a very striking and peculiar appearance already spoken of. Hemorrhage in various situations, other than the stomach, intestines, kidney or bladder is often a striking feature of the disease. It may occur from the nostrils, gums, ulcers, wounds or abrasions of the skin, and sometimes from the eyes, meatus auditorius, etc. Coma and convulsions are of occasional occurrence. They are probably dependent on uraemia. Generally there is notable muscular prostration, but to this rule there are remarkable exceptions. Patients sometimes do not take to bed, but continue their usual

avocations unaware of their condition often a few hours before death. The duration of the second stage is variable; from 12 hours to 3 or 4 days. In cases of great gravity, the duration is brief, & the disease running rapidly to a fatal termination.

The third stage, is called the stage of collapse or the stage of exhaustion; in fatal cases denoted by prostration, feebleness and irregularity of the pulse, with coldness of the extremities. If death do not take place, the third is the stage of convalescence.

The disease may be divided into mild, inflammatory, and malignant. In the simple form, the

disease ends in convalescence directly after the first. The inflammatory variety is distinguished by intensities of febrile movement. Malignant cases are those characterised by black vomit, or hemorrhages in other situations, followed by collapse or exhaustion, and there are also cases in which coma and convulsions occur.

The duration of the affection is variable. Shortness of its career is a distinguishing feature. In the shortest cases, death takes place in from two to three days. According to La Roche, the length varies from three to nine days. The average time is less than a week.

Causation. In treating of the etiology of this disease the question at once arises, does the special cause emanate from the bodies of those affected with the disease, in other words is the disease contagious? On this point medical minds are not altogether agreed. Volumes have been written by contagionists and noncontagionists in defence of the two opposing doctrines.

Such authors as Bristowe & Roberts still cling to the theory of contagion, but the far greater portion of the profession believe it to be noncontagious.

Of the precise nature and source of

the special cause of yellow fever we have no positive knowledge, beyond the fact that it originates without the body. Something, however, is known of the conditions under which it is produced. It is indigenous chiefly, if not exclusively, to warm climates.

Yellow fever is rarely developed south of 20° (South) or north of 40° (North) latitude.

There are three elements for the production of the cause of yellow fever that are never absent: high temperature, vegetable material in a decomposing state, and moisture. These three are always together in producing the cause of

this malady; but vegetable decomposition and moisture may be very abundant where the requisite polar temperature does not exist. In all such cases yellow fever never shows itself, never can show itself.

Diagnosis. The access of the ~~febrile~~ disease, and the symptoms during the febrile or first stage, present nothing highly distinctive. In a considerable proportion of cases, the disease at the end of the first stage, terminates in convalescence. The affection in these cases presents the characters of febricula. The symptoms which have diagnostic bearing in these cases are, the abruptness of the attack, pain in the back

and limbs, and suffusion or redness of the eyes.

In cases progressing beyond the first stage, and presenting the grave characters of the disease, the diagnosis is sufficiently plain. We have yellowness of the conjunctiva and skin, black vomit, hemorrhages elsewhere than within the stomach, epigastric pain, slowness of pulse, in certain cases, coldness of the extremities, suppression or scanty secretion of urine, and the phenomena denoting collapse.

The association of remittent with yellow fever has an obvious bearing upon the treatment.

Prognosis. The mortality of yellow fever varies much in different epidemics. The average mortality, according to La Roche, is 1 in 200 3. The rate of mortality differs in different periods of the same epidemic, the rule being decrease in the rate as the epidemic approaches its termination. Unfavorable prognostics are, yellowness of skin, black vomit, great diminution or suppression of urine, abundant hemorrhage in any situation, coldness of the extremities, jactitation, hiccough, convulsions, ~~and~~ delirium, ~~convuls~~ and coma. A favorable prognosis cannot be entertained in any case of this

disease. Unfavorable events are liable to occur when, up to the time of their occurrence, the symptoms appear to be favorable.

Exclusive of cases in which the immediate cause of death is uraemic coma, the mode of dying is by asthenia.

Treatment. With reference to the treatment of this fever, it must be said that there is no known remedy which can be relied upon to cut short the disease. It has been claimed by some that quinia and opium are effectual as abortives remedies, but this has not been substantiated by clinical experience.

"In the mild form of this disease no active interference is required. Quietude, restricted diet, ventilation, and other hygienic regulations; together with such palliative measures as particular symptoms in individual cases may indicate, suffice for the treatment. The palliative measures will embrace anodyne and refrigerant remedies, cold applications to the head, sponging the body, laxatives in some cases, &c. Dr. Stone, of New-Orleans, says, the only treatment which in his hands appears to be useful is that designed "to favor the efforts of nature in prolonged sweating, calm, and rest of the system."

He recommends "foot baths under the bed clothes and sponging the body with tepid water".

(2) Bloodletting has been advocated and largely used as a curative measure in yellow fever. This view, however, is now altogether abandoned.

(3) Under the head of malignant cases, are to be embraced all which are characterized by symptoms denoting great severity and danger. In the absence of known remedies or any therapeutical measures which exert a specific influence over the disease, the treatment in these cases can not be otherwise than expectant.

Mercury has, in former times, been considered by many as highly important in this affection. It has been thought to be desirable to produce ptyalism. This practice has now but few if any advocates.

Measures to relieve gastric irritability are often indicated. For this end, counter-irritation over the epigastrium may be employed by means of small blisters, dry cupping, sinapisms, and stimulating liniments. Anodynes given either per orem or by the enteric or hypodermic method, are useful. Other remedies are, chloroform in small doses, prussic acid, and creosote. Ice swallowed in small pieces has been found useful

in allaying irritability of the stomach. To prevent black vomit, and with a view to arrest gastric hemorrhage when it has occurred, the acetate of lead has been much extolled.

Great restlessness and vigilance call for opium. If symptoms be present denoting uræmia, the hot air bath should be employed. Sustaining measures are indicated in proportion as a tendency to collapse or death by asthenia is denoted by symptoms. Champagne wine in small doses frequently repeated, has been strongly recommended. Measures to produce gentle diaphoresis are of

great importance. Remittent associated with yellow fever, claims the employment of anti-periodics, especially the preparations of cinchona; these may be useful as tonic remedies in cases of unmixed yellow fever.
In the reduction of temperature quinia is of much value; this may also be affected by sponging the body with warm water, or in extreme cases with cold water.
The indigenous development of the disease is to be prevented by removing, as far as practicable, all auxiliary morbid causes relating to individuals and to the community at large; in other words, by measures of public and private

hygiene. There is reason to believe that complete sanitary regulations render the disease preventable. The importation of the disease is to be prevented by judicious quarantine regulations which embrace efficient measures for the disinfection of vessels and merchandise. Free ventilation is important as a means of disinfection. Clothing, bedding, etc., are disinfected by being subjected to a temperature of 210° to 250° Fahr. In view of the promptness and completeness with which cold destroys the special cause of the disease, it is probable that the disinfection of vessels would be effectually

accomplished by reducing the temperature below the freezing point.

Respectfully submitted.
Nathan R. Porter.

A Thesis

on

Typhoid Fever

to the

Faculty of Physic

of the

University of Maryland

by Richard Pue

1855

University of England

Faculty of Physic

Gentleman

As it has long been the time honored custom by those who apply for the degree of Doctor to select some subject directly pertaining to Medicine and express their views accordingly. Owing to my limited clinical experience I do not propose to make

many suggestions but will have to confine myself to conclusions drawn from Lectures and Text books. Of the many subjects which present themselves, I have selected that of-

Typhoid Fever

The malady to be described has received many different names owing to the difficulty in endeavouring into one or two words the many important leading

to this disease.
In this country the name Typhoid is most generally accepted from its resemblance to Typhus — while the Germans employ the word Abdominal Typhus to express more clearly the most important lesion

Anatomical Characters

From about the Sixth to Fourteenth day a Papular eruption makes its appearance on the skin. it is confined almost absolutely to

the abdomen but exceptionally it extends to the st and lower limbs.
These papules are of a rose colored hue and disappear upon pressure they generally last about a week or ten days, and do not leave behind any trace of their having existed. and are sometimes entirely absent.
In this as in other fevers the Urin is scanty and high colored, having in excess urea and uric acid with more or less albumen. The temperature is

is most important in the diagnosis it is subject to fluctuations which are peculiar to this disease, rising towards evening to fall the next morning with an increase from day to day seldom exceeds 106.0 except in fatal cases

The circulation is greatly accelerated, the pulse ranging from 110 to 130 per minute.

Additional lesions are the most important from the liability to complications the most

serious of all, they are
situated in the Peyerian
Solitary and sometimes
the Mesenteric glands.
they commence by an engo
gement and Enlargement
of the glands beginning wi-
th those nearest the Ca
ecum and extending upwa-
rds. about the end of second
week they take on ulcera
tion which may extend thro-
ugh the coats of the In-
testinal tube into the Peri-
toneum causing Peritonitis
and sometimes perforating
the walls of a blood ves
sel causing hemorrhage —

which may prove suddenly fatal. After ulceration Cicatrization takes place and the patches of Peyer are probably not reproduced
The complications are frequent and extensive and it is upon them that the severity of the disease depends. They include lesions of most all of the Abdominal viscera. Respiratory tracts and Nervous centers, the most frequent being congestion of the Lungs, Hemorrhage, Peritonitis &c. &c.

Causation

Medical research have shown that Typhoid fever is not restricted to any particular locality, it being Endemic in all parts of the world In Malarious districts it takes on more of the remittent type.

In regard to the Materies morbi of the disease the authorities are uncertain some hold it to be contagious others miasmatic.

The most generally accepted cause being imperfect Beverage, drinking

water contamination by
drainings from Privies
Cesspools Sewers &c. &c.

Diagnosis

This Fever is to be recognised and discriminated from other diseases by its gradual development and its daily increas of temperature which show peculiarities and variations which are sufficient to discriminate all other diseases

The unidentity of Typhus and Typhoid fevers was until recent years

a subject of very [illegible]
discussion, the discrimination
is now very simple as
the abdominal symptoms
which are so pathognomonic of Typhoid and exceptionally or never present
in Typhus, also Diarrhoea
which is exceptionally absent in one and Constipation which always accompanies the other
The Eruptions alone would
be sufficient to differentiate one from the other
it being diffused in Typhus
and circumscribed in Typhoid — Typhoid Fever is very

rare after the age of 25 years it seems the lymphatic glands disappear after that age. Infancy also is comparatively free from this malady. The most frequent occurrence being between the ages of 14 and 25 years

Treatment

This disease having no specific the expectant plan is universally adopted that is to meet indications as they arise and prevent complica

tions at the same time
supporting the vital
powers. Oleum Tere-
binthina is a very pop-
ular remedy, it seem
es to have a marked
influence over the
Peyerian ulcerations
and the tendency to
hemorrhage.
The milk diet is
highly recommended
and where stimulants
are required it is
a good vehicle for
them in the form of
milk punch

Thesis

on

Cholera Infantum

by

J. Henri Collenberg.

Dedicated to the

Faculty of Medicine

of the

University of Maryland,

February, 1879

Cholera Infantum.

The term, "Cholera Infantum", is employed to designate a disease of infantile life. It prevails in the summer season, particularly during the months of July and August, when the heat is the greatest. It also prospers more frequently in the cities than in the country, — on account of the presence of vapors originating from the decomposition of animal and vegetable

matter in the former, and the existence of a purer and healthier atmosphere in the latter. It is an affection exciting the alimentary canal, recognized by the older writers as non-inflammatory and by the later authorities as highly inflammatory in character. It similates Asiatic Cholera in the intensity of its symptoms, and is studied as a distinct disease, differing in certain respects from other intestinal maladies.

The majority of cases of Cholera Infantum occur in infants during the period of the first dentition.

The statistics of the number of deaths from this disease, is exceedingly large.

Causes.— The causes may properly be divided into predisposing and exciting; the most potent of predisposing causes being the extreme heat, and the most frequent of exciting causes, indiscriminate alimentation. Uncleanly habitations, overcrowding, imperfect ventilation, and impure air, co-operate with the two important causes above mentioned in influencing the intensity and consequent fatality of this disease.

It is stated by some authorities that dentition, is a cause;

on the contrary others attribute it to an over-activity of the development of the intestinal follicles, which excites in them an abnormal and abundant secretion that is so characteristic in this disease.
Another very plausible explanation of the over secretion of the glands, is, that it is due in part to the great depressing influence of the heat upon the sympathetic system of nerves by which those glands are controlled.
The latter statement is generally accepted, though no doubt dentition is an important factor in aggravating and adding to the other distressing symptoms.
Symptoms.— This disease may be ushered

in by simple, diarrhoea or, dysentery, the evacuations afterward becoming thinner and more frequent. But the majority of cases of Cholera Infantum commence abruptly, diarrhoea being the first symptom. The evacuations number in some instances twenty to thirty in the twenty four hours; they are recognized by a watery or serous discharge very much resembling rice water in appearance. Before the frequent evacuations set in the stools may contain considerable faecal matter. The odor is peculiar and offensive.

Another prominent and distressing symptom is Vomiting which

The fever is very high, the temperature ranging from 102 and 107 degrees; the average temperature is about 105, though in the stage of collapse, it is speed-ily reduced. The pulse is accelerated. there may or may not be any change in the respiration, often it is more rapid than normal. The tongue, at first moist and slightly furred afterward becomes dry and pasty. The urine is generally passed in small quantities in proportion to the discharge from the bowels.

The collapse and rapid emaciation is a striking feature in this disease, affecting in a short period the

former healthy appearance of the child. On account of the great loss of fluids from the tissues the skin becomes flaccid, lying in folds in various parts of the body the features become drawn and haggard; the bones of the face very prominent; the eyes and abdomen sunken in.

As the disease approaches a fatal termination the infant remains quiet; the strength rapidly fails; the temp-erature falls; the extremeties become cool and the surface clammy; the face presents an ashen hue; the pulse beating more and more feeble; these followed by profound coma, from which the infant cannot be

aroused, sooner or later ends, in death.
Anatomical Characters.— The Gastro-
-intestinal tube presents no serious lesions
which might naturally be expected from
the gravity of the symptoms. The solitary
glands are enlarged as well as those
of Peyer, accompanied by softening and
erythematous redness of the mucous membrane.
The mucous membrane of the stomach, is
rarely found to have undergone any path-
-ological changes. The liver presents
very little evidence of disorder. The brain
and its membranes also show no uniform
lesions, though the capillaries and cranial
sinuses are found congested.

Diagnosis.— By the character and frequency of the stools, rapid sinking and emaciation, persistent vomiting and great thirst, we can readily differentiate it from other diarrhoeal affections. When Asiatic Cholera prevails it is almost impossible to make a diagnosis.

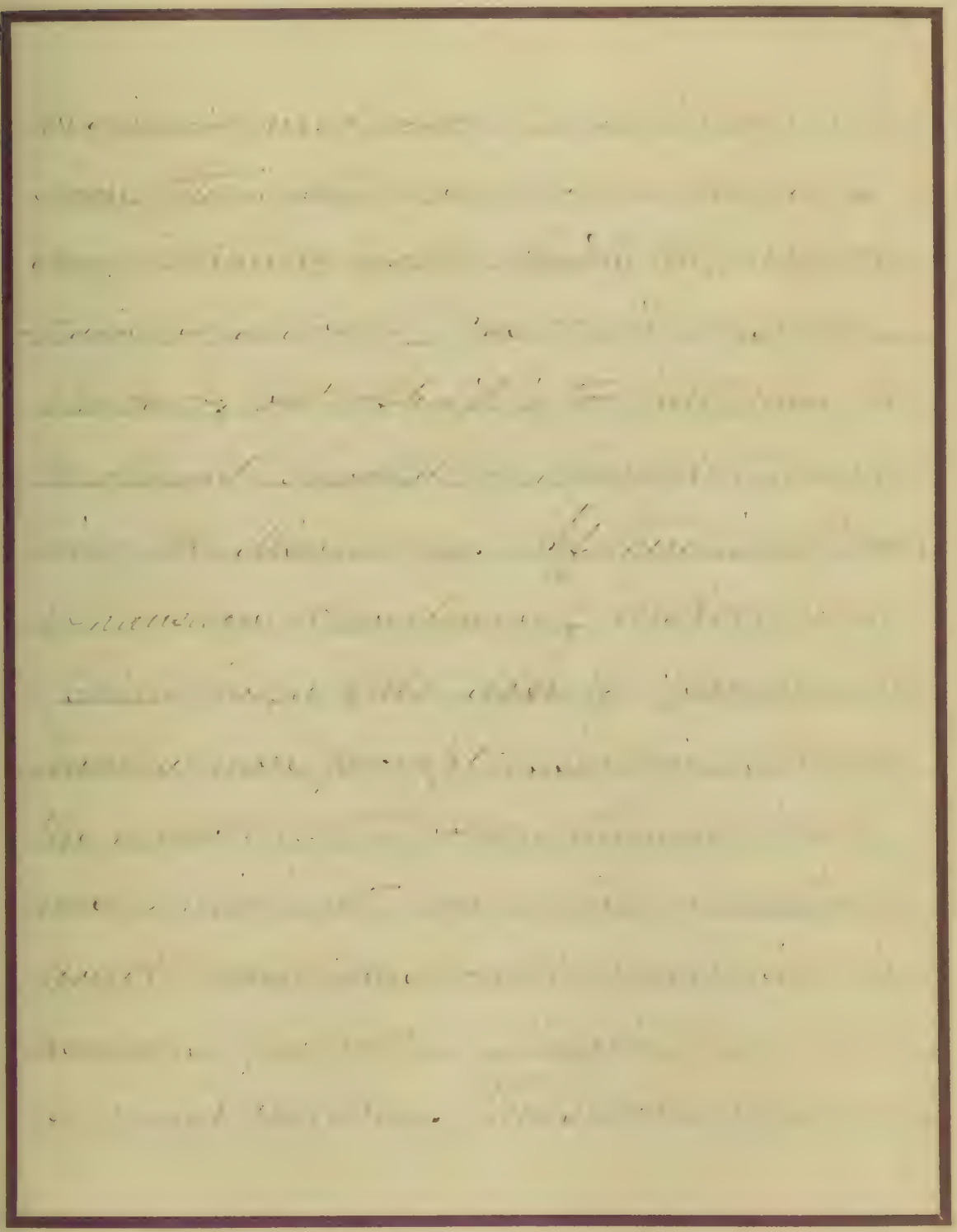
Prognosis.— Physicians should be guarded in giving a favorable prognosis in this disease, as there is always danger even after the worst have subsided that the attack may end in an inflammatory diarrhoea or entero-colitis, either of which may in turn prove fatal. When the symptoms are severe in the commencement

and continue unabated in spite of treat-
-ment, very little encouragement can be
given; death may take place in twenty
four hours. The average duration of fatal
cases is from two to four days. Favorable
cases usually make a speedy recovery.

Those cases which
present symptoms of cerebral irritation
are looked upon as being attended with
great danger, death often ending in
convulsions or coma. The cerebral symp-
-toms may be recognized as being due
to uremic poisoning.

Treatment.— [illegible]

[illegible] prompt treatment; [illegible]



A Thesis

on

Typhoid Fever,

respectfully submitted to the

Provost, Regents and Faculty of the

University of Maryland

for the

Degree of Doctor of Medicine,

by

Harry E. Sims

of

Maryland

A. D.

1879.

Definition.

An acute specific disease, characterized by an inflammatory affection of Peyer's patches, and the solitary glands of the intestines.

Causation and History.

Typhoid fever is a disease known in the entire world; and neither old nor young, male nor female are exempt from it.

It is most common under the age of twenty, and the mortality increases, as the patient advances in years.

From its frequency in the higher grades of life, it attacks the

not seem to depend upon over-
crowding or bad ventilation, but
upon the dissemination of poisons
in emenations from privies, cess-
pools, and water-closets; or the
drinking of water polluted from
these sources.
It is also proven to have been
produced, by the drinking of
milk which had been adulter-
ated with water from a cess-
pool; or when cans have been
washed in water from the same
source.
It is not contagious, yet the
immigration of a patient affected
with the disease, to a previously
healthy locality, may cause an outbreak

of the disease, ... great care is taken to disinfect the excreta. It is claimed that the pus when first discharged, contains no material which would produce the disease in another; which accounts for the rarity with which nurses are affected. It is asserted by some high authorities, that one attack confers immunity against future attacks; this however is untrue; as many second attacks are on record.

Symptoms and Progress.

The premonitory symptoms, and the mode of attack in typhoid present great variety.

The [illegible] is [illegible];
but more commonly its attack
are insidious; commencing with
a feeling of [illegible] with head-
ache, slight fever, pain in back
and limbs, and loss of appetite;
which generally continues for a
week or ten days, before the
patient is compelled to take
to his bed.
At the end of ten days, the
pulse increases in frequency,
the patient has alternate chills
and flushes of heat, and the
temperature is increased; the
patient is probably drowsy dur-
ing the day, and wakeful
and restless during the night;

is liable to profuse
pulse and respiration
in frequency, tongue
cracks or fissures extending
over it.

of [illegible] [illegible] [illegible] [illegible]
of about a [illegible] to a [illegible] and
a half in diameter, which
are raised above the surrounding
surface; the spots disappear on
pressure, but immediately
reappear.
They develop and disappear
in three or four days, and
consequently spots of various
ages are present at the same
time.
The spots are however not
diagnostic of the disease, as it
frequently runs its course
without their appearance; or if
they appear at all, in very
minute numbers.

[illegible]
[illegible]
they [illegible] found on the [illegible]
extremities.
The abdominal symptoms also become marked at this period of the disease.
Bowels are sometimes loose, and sometimes constipated.
From this condition the patient either improves and goes on to recovery, or sinks into a typhoid condition, with morning remissions and evening exacerbations of temperature; the teeth become covered with sordes, and the patient becomes more prostrated, and bed sores are apt to appear.

sometimes remains clean,
with a brownish fur.

from typhus, by its commence-
ment; typhus being usually
typhoid insidious.

[illegible]

[illegible] enlargement, which may probably account for the persistence of the abdominal symptoms.

The patches nearest the ileocaecal valve are most commonly affected; and the ulceration grows gradually less, as we examine up the intestine.

Stricture of the bowel as a result of the cicatrization from an ulcer, rarely if ever occurs.

Enlargement of the mesenteric glands exists to a greater or less extent, and the softening of these glands, has been an occasional cause of peritonitis.

are recommended.

A Thesis

On Diphtheria

Respectfully submitted

To the

Provost Regents and Faculty

of Physic

of the

University of Maryland

By

F. West

of Maryland

A. D. 1879

"Diphtheria is a disease of antiquity. Aretaeus at the close of the first century of the Christian era describes the Malum Aegyptiacum as a malady which occured chiefly in childhood and was characterized by a white covering extending over the tonsils and the teeth and in some patients a return of food through the nostrils and [illegible] ending in suffocation"

Since that time it has become one of the most fatal and common epidemics in Europe and this country

Diphtheria is preeminently a disease of childhood — The majority of cases being from two to ten years

-sites. The Bacteria have been divided in four genera; which species two of them are thought to be in some causal relation to diphtheria viz. Sphero bacterium or micrococcus and secondly the micro bacterium or rod like bacterium

The microscope has revealed the following facts relative to diphtheria. In every tissue which is the seat of diphtheritic inflammation and in every pseudo membrane the sphero-bacteria occur in immense numbers, accompanied by a smaller number of the other kind. In severe cases they are also found in the blood, as the symptoms become more grave increase in the numbers of the sphero bacteria can be demo-

studied. They multiply rapidly just before a pseudo-membrane forms—

J. Lewis Smith discusses the point—Whether these parasites are the specific virus and therefor cause the disease; or that the cause is something more subtle not yet discovered, which so alters the tissues and the blood that they become a nidus in which bacteria are early and quickly developed; so that being few and innocent they become myriads" and he holds the latter to be true.

In most cases it is a local malady from the lodgment of diphtheritic poison upon some portion of the mucous membrane or upon any part that affords it a sufficient and suitable nidus.

Therefore by local treatment properly ap-
plied, it may be cured before it has af-
fected the system.
When the system does become affec-
ted, however, by the absorption of
some of the morbid products, having
a local commencement, through the ab-
sorbents or the capillaries or both.
There seems to be quite a diversity
of opinion as to what the real
substance is, and as that point
has not been settled, I will not
dwell on it.
Acute cervical adenitis and cellu-
litis producing tumefaction along
the neck are grave signs, showing
the poison has entered the lymphatics
and infection of the system.
The diphtheritic poison may also enter

lungs; as the microscope has shown the
hence it is highly probable the system could
be affected through that channel
Therefore there are two recognized modes
of systemic infection viz by inoculation
upon one of the tegumentary organs
and through the lungs
In whatever way the virus enters the
system it is specially attracted to
the fauces— Therefore pharyngitis is
its earliest and severest local man
ifestation
Unlike most acute infectious diseas
es it often occurs in a secondary as
well as primary form: it sometimes
ingrafts itself upon acute infectious
diseases— Such as hospital gangrene
bad epidemics of typhus fever, also
scarlet fever and measles, which

increases the fatality of them.
Some writers state that membranous croup and laryngeal diphtheria are one and the same.
Smith holds that the exudation of true croup may form a nest for the lodgment of the virus.
The area of contagion is limited to the room in which the patient is; or to his immediate vicinity.
Anti Hygienic conditions also favor the occurence and spread of the disease; it is also well known that the sputum and bits of the membrane may communicate the disease.
As regard the anatomical character during an epidemic of diphtheria and in localities where diphtheria is endemic physicians often remark

the prevalence of a form of catarrhal pharyngitis. Some times in so many instances that it may be called an epidemic.

It commences abruptly, with fever which may be as severe as in diphtheria.

There is dryness & fullness in the throat pain in swallowing face flushed skin hot and dry and headache lasting three or four days.

If we inspect the fauces we find them bright red & it may be limited to the tonsillar region not much swelling is observed.

Within a few hours small circular spots appear upon the tonsillar mucous membrane looking like grains of ground alum salt; from six to twelve may be seen on each side of the fauces

size [illegible] the [illegible].

They consist of epithelium cells and granular matter united together by tenacious mucus. [illegible] be brushed off for they do not penetrate the mucous membrane, and contain no fibrin.

In three or four days the redness begins to abate. The color of the patches changes to a dingy gray, they drop off and are brushed away by the ingesta and within a week the patient has recovered.

This has been called catarrhal diphtheria.

Immediately in the commencement of diphtheria, we observe redness of some portion of the mucous surfaces, in most cases the fauces.

The color is sometimes a deep high-

red almost like arterial blood.
When it is dusky red it indicates a vitiated state of the blood.
The dusky red most common in secondary diphtheria.
In a few hours the whole faucial surface is involved in the inflammation.
The intensity varies in different patients tonsils are turnified but less so than in tonsillites.
Within a short time from the commencement of the inflammation, it may be a day or only a few hours, a small patch is observed usually on the tonsillar portion of the throat.
This is what is called the pseudo-membrane; it gradually becomes thicker and assumes more tenacious hold, being of a grayish white color.

[illegible] closely attached to the mucous membrane, and if it is torn off [illegible] there is more or less hemorrhage. It does not ordinarialy attain a thickness of more than 1/8 to 1/6 of an inch.
The microscope reveals numerous micrococci and also the rod like bacteria in smaller numbers. They seem to be generally mixed with the whole mass of exudation, penetrating down through the epithelium to the tissues below.
This state of affairs may last for a few days, when decomposition commences, and the membrane thus formed becomes softer and changes to a grayish white or dirty brown, the pus forming between that and the tissues below.

It is finally cast off in pieces or in the whole, and either swallowed or expectorated.

In a majority of cases it does not separate in mass but by progressive liquifaction

This is the history of the pseudo-membrane in the majority of cases that tend to recovery.

All mucous surfaces are liable to be attacked by the inflammation in consequence of infection of the blood. Viz. The mucous membrane of the nostrils mouth larynx Trachea oesophagus stomach &c

If the exudation occur in the larynx we then have the phenomina of true croup

Septicaemia is most apt to occur when

The breath is fetid, and the membrane becomes dark gray producing an ichorous discharge, flowing from nose and mouth.

The kidneys in bad cases show albuminuria and casts also the hyperaemia is indicative of death by diphtheritic laryngitis also of septicaemia

Symptoms. The symptoms vary greatly in intensity in different cases.

The commencement of an epidemic is more fatal and violent than when it is abating.

First there are chills or chilly sensations, fever, headache loss of appetite in fact, a feeling of general malaise simulate

the prodroma of a cold, for which it is sometimes mistakined; a slightfulness in the fauces occurs in many cases. In other case the attack is sudden and severe, accompanied with great petrile movement. They are not necessarily fatal however as restoration to health may be rapid and complete.

The tongue is covered with a moist fur and sometimes more or less exudation on it. The breath in severe cases has a gangrenous odor. Sometimes there is a flush on the countenance which lasts for a short time and then disappears, but this is not in all cases.

The temperature is in general less than in scarlet fever. The fever abating in a

few days.
In advanced stages the surface of skin is normal or less than normal.
More urea is found than in convalescence.
But the most interesting change in the urine is the occurrence of albumen. It may occur in the first two or three days, or in some cases not until the last of second week.
The course of diphtheria varies greatly; it may be only a week's duration or several.
Sequelae — The blood seems to be much changed and those recovering remain often for weeks with pale cachectic appearance.
There is another sequel of great interest which is quite common

Vs paralysis:
It does not occur until after the abatement of inflammatory symptoms and convalescence seems established.
The muscles most affected are those of the pharynx making deglutition difficult.
It may also affect the motor muscles of the eye.
In some; The muscles of the bladder leading to retention of urine and difficulty of passing water.
Defective vision may also be a sequel.
Prognosis — Most favorable when it occurs sporadically, or at the close of an epidemic, also the intensity of the local symptoms.
When inflammation returns to

Larynx and croup arrises recovery is slight.

When croupy cough voice and obstructions fatal results almost inevitable.

Diagnosis - When the prominent lesions are in the larynx it will be called croup.

It is usually accompanied with more swelling about the neck and more discharge from nostrils.

Treatment - The treatment consists in local and general treatment. In the first we must use local if the patient can be seen in time; and we must, if we would do good, overcome the repugnance of the patient for pain if necessary to apply our local remedies.

[illegible] the application as painless as possible.
Whatever substance is used it should be applied in such a way that it penetrates the pseudo membrane and reaches the membrane below.
A preparation of Potass Chlorat [illegible] applied with a brush to the infected parts is highly recomended.
The discharge from the nose should be washed out with a dilute preparation of the same a syringe should be used.
Quinia also should be given in 1-4 gr doses, also a preparation as above should be taken every two or three hours in ℥j doses,
and good nourishment.

A few paragraphs on the use of [illegible] with lemon.

Preventive measures— When it has occurred in a family, the rest should be examined from day to day, and made to gargle with some of the Chlorates.

Should a case appear it should at once be isolated, and the same remedies applied.

If the child is too young it should be made to swallow a portion of the solution, disinfectants should be used also.

Quinia as a prophylactic.

Lewis Smith thinks [illegible] of it— This is what I [illegible] diphtheria.

[illegible]

An
Inaugural Dissertation
On
Rheumatism
Respectfully Submitted
To the
Provost Regents & Faculty
of Physic
In the University of Maryland
For the Degree
Doctor of Medicine
By
Melchor Gist Cockey
Cockeysville
Baltimore County
Maryland.

Feb 13th 1879.

Gentlemen in presenting to you this my inaugural Thesis and dissertation upon the wide and deeply interesting subject of Rheumatism - I present it fully aware of my numerous imperfections and inability to do the subject justice. But with the respect esteem and confidance which I have for the whole faculty of the University of Maryland I most humbly submit to your Judgement this my inaugural dissertation As for originality and the advancement of new ideas I Gentlemen can claim little But I will do my utmost in regard to presenting a Thesis to you which I hope may be read and accepted and that in after years I can come to the Shrine of my

Alma Mater and scan with an eye of delight these lines which I am now writing As for casting any new light on any spot of the wide subject of Rheumatism which is now dark would I might say be almost impossible for a Student with his limited amount of Theory and scarcely any practical views on the subject. But knowing that this will be read by a tribunal of Gentlemen who fully understand and appreciate the difficulty which a student encounters when writing a medical Thesis with his mind as it were just blooming into the fields of Medical science

In considering the subject of Rheumatism I propose to enumerate and consider in a cursory manner the varieties clinical

history causation Diagnosis Prognosis, Treatment &c — There are three principal varieties, viz acute articular the chronic articular and the muscular acute articular Rheumatism — Acute articular Rheumatism as may be naturally inferred from its name is an affection usually involving the joints and articulations, The joints are greatly inflamed red, hot and swollen, But the inflammation in this affection rarely or I might say never leads on to suppuration or the exudation of plastic matter or any structural lesions whatever, The disease generally runs a rapid course and often disappears in a few hours, in this affection the pericardium or endocardium often

becomes involved producing Endocarditis and Pericarditis. But unless these structures become involved their is little or no danger to life. This disease is extremely painful and the approach of attendents or the slightest movements are distressing to the patient in the extreme. The onset of this affection is very sudden and in the large majority of cases takes place at night sometimes pain and soreness preceeds the attack the pulse is full and stout the skin hot and the tongue moist and fured and the surface frequently bathed in a profuse sweat which however does not relieve the patient much - their is often constipation while the urine is high colored and scanty and shows on

cooling a characteristic deposit Pain is generally increased at night and the long needed sleep is not at hand In some cases several joints are affected simultaneously or in succession while in others it limits itself to a single joint sometimes though rarely the brain is affected the direction of the attack differs greatly some cases recovering soon while others are tardy in their recovery. The causes seem to be first in the position of a Rheumatic Diathesis some writers have attributed it to an excess of uric acid and others to that of Lactic acid. The exposure to cold and atmospheric changes or the sudden checking of perspiration and all favorable causes. The extremes of life that is

childhood and old age seem to have a little exemption from this form of the disease. The male is more often affected than the female on account of being more often exposed to its exciting causes. The diagnosis is rather simple the only disease it is likely to be confounded with acute Rheumatism being Gout. The age of the patient and the previous occurrance of Rheumatism are all points to be taken into account. Gout and Rheumatism are alike in one particular that is the hereditary predisposition. Gout generally belongs to the wealthy and aristocratic while Rheumatism is confined principally to the poor and needy Plebian. The small joints are mostly affected in Gout, most

frequently the great toe. The prognosis of acute Rheumatism is favorable when death does take place it is usually due to some complication as Pericarditis or Endocarditis or Pulmonary complications may prove fatal. The treatment of this disease is as wide as it has been changeable. General and local bleeding mercury and colchicum nitrate of Potass and Veratrum viridi all in turn have been used with some supposed good effect. The alkaline treatment however is at present most relied on, a good formula in such cases is the following ℞ Vin Colch Rad ℥ii Potass Bicarb Iodide āā ℥iiss Aqua menth pep ℥iv. M.S. Teaspoonful ter die also ℞ Acid salicylic ℥ii Iodii Bicarb ℥iii

Glycerine ℥ß Aqua menth pcp ℥iiiß a Tablespoonful ter die

The lancet when used prudently is useful and often gives great releif and by reducing the high vascular excitement renders the disease more manageable. Blisters also often give great relief and are useful Dovers powders are useful to allay pain and produce sleep, If the brain or heart become involved they must be treated accordingly. The long used red flannel bandages are advantagious,

Subacute and chronic Rheumatism

In the first discussion of acute Rheumatism nearly all is told that can be of the other forms with a few exceptions. The chronic form of the disease sometimes follows

the acute. In this form the muscles are generally the seat of pain. But their is no part of the body free from it and its changes are often very swift The heart is more often attacked in this form of the disease than in the others. The Diagnosis is sometimes very hard, but can be made clear by a little thought and study This is characterised by muscular pain on movement and Great pain during the attack. Prognosis generally favorable Treatment owing to the disposition which chronic Rheumatism has to change its seat some care must be taken in its treatment the alkaline with external applications stand first among the most efficatious at the present

day Opium is also very good
Muscular Rheumatism - little will
suffice on this subject. The muscles
affected are tender on pressure the
tenderness diffusing itself over the
whole space which the muscles occupy
Besides the tenderness their are all the
other characteristics of inflammation as
swelling heat and redness. The most
efficient treatment consists in sinapisms
followed by emolient applications over
the affected muscles. Bromid Potass
with Ammon are useful in this form
of Rheumatism, cathartics may often be indicated
℞ Fr Arnica. Fr Camphor. Fr Opii. Fr Aconite Rad āā ℥i
Chloroform ℥i Al Caryoph ℥ss. M Sig Locally.

Dysmenorrhœa.

Julian Meredith Baker, B. Sc.

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A dissertation upon a medical subject, founded upon other than clinical observation and experience, must necessarily either be deficient in the characteristics of an intelligent and readable discourse, or advantage of the experience of others must be taken and an attempt at an intelligent compilation of the facts be made. A student, the former can not be expected, the latter requires more time than the fear of failure at examinations will allow him to spare, his shortcomings are forever

the [illegible] function as it exists in the mammalian is characterized in the female by the periodical maturation of a Graafian follicle or follicles and the subsequent discharge of its contents, the germinal vesicle, from its source in the ovary into the Fallopian tube, then to be propelled along this canal to the uterus. Here in the human female to be mingled with the contributions of that organ to this series of phenomena are discharged into the vagina and along this canal through the

valva to the external world, or
else by contact, with the
spermatizoa of the male seminal
fluid it is retained and thus
is formed the foundation of
a series of phenomena which
has its consummation in the
"Propagation of species"
This is purely a Physiological
process and in the human female
if perfect health and Typical
Development is a source of
little or no inconvenience. Any
morbid condition of the parts
concerned renders this organic
activity painful and difficult.
Physiologists have agreed to call
the former or the easy performance

of function. Menstruation, the latter falling in the domain of Pathology has received the name of Dysmenorrhoea.

The changes from the Physiological to the Pathological state, (the understanding of) which is necessarily the basis of an intelligent comprehension of the phenomena of Dysmenorrhoea, have engaged the attention of medical men for a considerable period, and like most other scientific problems had its votaries pro & con the results of the observations of different men. Some, as Rigby, considered all the conditions explained by the supposition of inflammation

Bennett ascribed a majority of cases to the Rheumatic diathesis, while the "Irritable Uterus" of some authors on the other hand, played an important part.
Still another class, the most recent, and it seems most reasonable observers can find some principle mechanical form of obstruction to the free exit of the menstrual products in the great majority of cases; still recognizing in some cases the existence of a condition of affairs similar to that described by the older Pathologists.
The rational basis for an intelligent description of Dysmenorrhoea is necessarily

Physiological, and as our efforts, however far short they may fall, are in that direction It becomes necessary to hold certain conditions, in a state of rest, and Physiological activity, of the organs involved in the process of menstruation, and probably in some cases, where there is previous constitutional Derangement, in this alone may be found, an explanation of some of the characteristics of Dysmenorrhoea.

The essential organs for the successful conduction of the reproductive process on the part of the female are the Uterus, Ovaries, Fallopian tubes, Vagina

and vulva with the accessory ligaments formed by reflexions of peritoneum over their exterior. The uterus together with the other organs is situated in the pelvic cavity, composed of musculo-fibrous tissue surrounding the internal cavity, the endometrium, richly supplied with blood vessels and nerves and communicating with the external parts by the vagina, and the ovaries through the Fallopian tubes. Its axis, in the normal position, corresponding with a line drawn from the umbilicus to the coccyx. The Fallopian tubes are canals leading from the body of the uterus to their

fimbriated extremities which have the freedom to swing around and receive the ripened vesicle from the ovaries to deliver to the uterus for further development. At the Catamenial epoch there is an increase in the vascular supply, and an increase in the tension of the walls of the vessels, as shown by experiments with the sphygmograph, hypertrophy of the uterine tissue, enlargement of the ovary and development of the uterine mucous membrane. A constitutional impression is generally produced as shown by the peculiar psychical phenomena and the hyperaesthetic condition

of the sensorium. In a Physiologically perfect woman, as before remarked, this condition of affairs possesses none of the elements of disease; but, thanks to modes of life induced by the advanced stage of civilization of which we boast so much, many women are not so fortunate and it seems reasonable to predict, that, ~~that~~ unless there is a marked revolution in the "Hygiene of Dress" and other regulation which will tend not to impair the health of our women, truly this troublesome affection, Dysmenorrhoea, ~~may be said to~~ will "keep pace with civilization". An improper

regard for these laws of health may lead to nearly all the maladies to which woman is subject.

The most common cause, except in the hyperaesthetic temperament, of Dysmenorrhoea, then, it seems apparent, must be a mechanical obstruction at some point along the oviduct. The "Irritable Uterus" must be a concomitant of such a temperament and as such is only a local manifestation of a general disorder which itself being remedied all disorder ceases.

Primitive inflammations as a result of sudden suppression or retention from cold, emotional or

kindred causes will be found
in some cases, and still another
class of cases may be found
referable to Pathological conditions
different from any mentioned;
but in the great majority
some of the above mentioned
conditions will be found, as a
consequence we have developed
the different forms of Dysmenorrhoea,
the Neuralgic, Mechanical obstruction
(whether in the ovary, Fallopian tube
or Uterus) & Inflammatory
As a result of obstruction there
is a retention of the Menstrual
products and the characteristics
of a foreign body in the
cavity — is manifest in the

Continual contractile efforts
of the uterine muscular fibres.
Their efforts are ineffectual
in expelling the retained body;
excitation and irritation of
the peripheral nerve fibres
and by reflex ~~action~~ action upon
the central nerve ganglia
manifests itself in pain. Here
we find and exemplification of
the truth of that old maxim
"Ubi irritation, ibi inflammatio", so
we conclude that an element
of inflammation enters as
a secondary component in the
series of causes of Obstruction
dysmenorrhoea. The primary
inflammations will be spoken of

later. This pain is referable to the pelvic region or by over distension of the organs and pressure upon the larger nerves in the vicinity ~~of~~ distributed along their course in the lower extremities. Besides in the uterus there may be obstruction either in the walls of the Ovary or in the tunic of the Graafian follicle itself preventing its rupture and discharge of the vesicle. This gives rise to the dystocial variety and a similar nomenclature to the one employed in the other varieties sanctions the name of Dysmenorrhea. A second class wherein the seat of

obstruction is in the uterus
Depends upon stenosis of the os
either external or internal,
congenital or the result of
flexions. The most common being
of the os internum from a
retroflexion of the infra vaginal
portion of the cervix, rarely
the supra vaginal". Again there
may be a hypertrophic enlargement
of the infra-vaginal portion
of the cervix, giving rise to
hardening and interference with
the free expansion and contraction
of tissue incident to the
functional activity of the organ.
Also imperforate hymen or partial atresia of the vagina,
And Jet, Pelvic Peritonitis or
cellulitis producing adhesions which

interfere with motility. Gynaecologists recognise other Pathological conditions as causing the Dysmenorrhoea, Metritis - Endo metritis, Cervicitis or Vaginitis. The inflammatory conditions as before stated are generally secondary and tend rather to aggravate than produce Dysmenorrhoea As a result of all this a Pathological condition of affairs is produced which Barnes condemns to the following * Congestion and enlargement of the body of the Uterus, disposing to Menorrhagia and causing Uterine pain and colic. A similar condition of affairs of the Fallopian Tubes and undue patency of the

mouths of the tubes; Congestion
enlargement or inflammation
of the ovaries, determining Retro-
uterine haematocele, Intra-abdominal
hemorrhage, limited pelvic
Peritonitis or Cellulitis with
or without adhesions of the
tubes or ovaries. As an ultimate
result continued obstruction
may entail, through the action
of inflammation, or long interference
in function, atrophy of ovaries
and extinction of the menstrual
phenomena", any one of these
will furnish a sufficient cause
for the phenomena in question,
and they may all be contemporaneous
with a single life; but repeated

coition or the duties incumbent upon married life can only increase the malady - Such are the cases wherein the obstruction is in the Uterus, The Dysartocia previously referred to is that variety wherein the seat of obstruction is in the ovary either in the walls of the ovary itself or in the tunic of the Graafian follicle. The most marked examples are in those cases where there is complete absence of the Uterus or where it is very rudimentary in point of development. In such cases an artificial vagina has succeeded in curing the condition. That it is

sometimes met with in fully developed organs however is proved beyond doubt. Such cases are generally classed with Amenorrhoea, because the ovarian stimulus to the Uterine tissue is not sufficiently marked to promote the bloody flow from that organ, but as the function is partly performed Dysmenorrhoea is the proper term. Vicarious menstruation is apt to make its appearance, as Epistaxis or Haemoptysis and other causes being excluded this may be taken as evidence of commencing ovarian disease. In the performance of its function of ovulation there

is manifested ~~in~~ ~~[illegible]~~
"A higher degree of excitability — of the cerebro-spinal centers, Exalted tension of the vascular system, of the ovary or follicle walls themselves present an obstacle to the free swelling and bursting of the vesicle or if there be any morbid condition as subacute inflammation in the ovarian structure, then ovulation being impeded or disordered there is a source of irritation" and so in the uterus, the presence of a foreign body manifests itself in pain. ~~and~~ It frequently happens that the Dysotocia develops the peculiar nervous phenomena

denominated Hysteria. The intimate relation between Hysteria and this form of Dysmenorrhoea seems clearly proved by clinical experience. In our own limited experience we have met a case in which the symptoms of Dysostocia were well marked in a clear case of Hysteria, when seen the patient had been confined to the bed for four weeks and was believed to have Typhoid fever, was eighteen years of age, had always had difficulty in menstruation since its commencement at the fifteenth year, vicarious menstruation was present, in Haemoptysis. She had not menstruated since she had

been confined to bed, no physical signs of pulmonary disease, temperature very little above normal, 99.5°, no Diarrhoea, but pain from the first in the right Iliac region. No emaciation, apetite good. The pain was refered to the suppuration of Peyers patches and was about the only symptom of Typhoid fever that we could discover. The Typhoid treatment was abandoned and the patient rapidly recovered her feigned loss of strength under treatment directed to the nervous phenomena & by counter irritation over the seat of pain. Negrier, who has done so much in Ovarian Pathology, Schutzenberger

and many others hold this view while others still deny the theory altogether and consider the pain simply muscular Negrier has notice that it is generally concomitant with what he calls the "Ovarian Temperament"

In those cases referable to suppressio Mensium, by cold, excitement grief &c, there may be at first simply conjestion of the uterine structure, but a subsequent Peritonitis, cellulitis or metritis is generally developed and tend to protract the disorder indefinitely unless appropriate treatment is pursued.

A peculiar kind of Dysmenorrhoea characterised by the expulsion of a membrane has received the name of Dysmenorrhoea membranacea. The character and significance of this membrane seems to have elicited a good deal of discussion on the part of Gynaecologists and its character is not yet fully determined. Barnes believes it to be either a membrane thrown off as the Decidua or it is simply fibrin and mucous with the appearance of a membrane, but, really not a membrane. Of the discharge is membranous, he says, the probable

explanation of the Dysmenorhaea is that, at the menstrual epoch instead of being gradually exfoliated and cast off from the Uterus, from some cause or other it is forcibly detached from its connection and as a consequence there is Irritation, & sufficient ground for the subsequent symptoms. Syphilis may cause it, or it may be exfoliated from the vagina. By exclusion of all the forms of Dysmenorhaea mentioned some are found to be due to a neuralgic nature. The combination of circumstances at the menstrual epoch which we have described as Congestion

Hypertrophy and Hyperaesthesia of the sensorium together with the possibility of neuralgia affecting any nerves, why not of the uterus, render it plausible that such a form is real — The "Irritable Uterus" as a local manifestation of this general constitutional impression, we have good authority to believe is not a myth

The opinion of those who notice the preponderance of this class of affections among the women in the higher walks of life together with the preponderance of the [illegible] in that class and the comparative immunity of those with hardier habits ~~of life~~ should have due weight.

I stand midway between the

Fanatics of both for and against,
this view possesses the merits
of both without its demerits.
The signs symptoms and treatment
of Dysmenorrhoea will of course
vary with the form under observation.
We should say the symptoms will
in the most part be the same for
all forms. All the tact of the
Physician may be necessary to determine
the significance of the signs, this
determined, the treatment is clearly
indicated. In the most common
form, the Obstruction

there would be more or less pain, pelvic or extending along the distribution of the longer nerves, lying near, generally coming on a few days before the flow and decreasing as it becomes more abundant, may be slight in degree or of such severity as to utterly prostrate the patient. Symptoms approaching those of collapse may be observed in the severer cases, Headache, vomiting syncope, delirium or even acute mania are sometimes present. These symptoms may subside as the flow ceases or may be protracted to such an extent as scarcely to give time for reaction before

another attack and generally with increasing distress, unless appropriate Prophylactic measures have been pursued in the intermission.
By a physical exploration of the genitals, with finger, sound and speculum the exact conditions can always be accurately determined by an experienced Gynaecologist, and the plan of treatment indicated thereby.
In treatment the indications would be first to afford relief during the attack, after which measures for the permanent relief of the disorder are to be pursued.
The first may be accomplished by anodynes, sitz-baths and leeches directly to the cervix or to the

abdomen, dilatation by laminaria or sponge or Sea-tangle tents will often be of great service or the passage of the uterine sound a day or so before the catamenia appear may in some cases thwart the attack altogether. During the intermission an accurate diagnosis should be made when the course to pursue will be perfectly clear. If stenosis of the internal os exist, it generally depends upon a flexion and the treatment should be directed to that. The operations of dilatation by incision, which afford such good results in stenosis of external, has, says Thomas, various objections to its application ~~to~~ the internal

which make it ~~make it~~ impracticable. Should stenosis of external os be diagnosed after the failure of milder means, surgical procedure may be contemplated. Laminaria tents accurately adjusted to the curve of the cavity may be introduced and often with good results. Certain injurious effects produced by them make them of doubtful utility in some cases. Then recourse may be had to the operation of incision, which consists simply in excising a portion of the cervix, with the result of relieving the stenosis. Good results nearly always following. The operationed is performed by this means. The patient in the

dorsal decubitus male near the edge of table, thighs well flexed on abdomen. It is generally performed without anaesthesia. The speculum is introduced, lip pulled forward with the tenaculum and the sound introduced to get the exact curve. The blunt blade of Küchenmeisters scissors is passed through the os a quick stroke of the scissors removes the intervening tissue. The cutting blade is then passed to the other side and the operation completed with a like manoeuvre. (Flex - thighs up) Nervous disturbance is likely to follow the operation which can be relieved by appropriate medicinal means. Rest in bed

for several days is necessary.
The beneficial effects may not be
immediate, but when the inflammatory
effects are relieved markedly good
results may be expected.
The ovarian variety will manifest
itself in pain in iliac region, limited.
occuring before the menstrual flow.
If muscles of abdomen are touched
abdominal walls become tense, to
protect the structures within.
Pressure through the vaginal walls
toward the affected side elicits
pain, very acute. By palpation
with one finger in the vagina
or rectum the enlarged and
tender ovary can be felt.
The uterus may be drawn to the

affected side in Lateriversion.
In treatment, leeches at first, Turpentine fomentations, blisters, and anodynes & in the severer cases inhalation of chloroform — will relieve the distress may be permanently, but rarely.
The commencing ovarian disease of which this is the earliest manifestation will require its own appropriate treatment.
In the Inflammatory variety the indications are essentially the same together with opiate applications to the part, generally with good results, unless unfavorable complications arise. These must of course be treated as they require.
To treat the neuralgic form we have recourse to anodynes

using them with great care
& prevent the formation of
the habit; Stimulants may in some
cases be used with the same
precautions, the patient should
be advised to engage in some
healthful occupation, to attend
to the household duties with
plenty of exercise in the open
air, If the circumstances financially
will allow it, she may visit some
of the popular watering places.
The association and health
giving mode of life at such
places may greatly benefit her,
In fact every thing should be
done to build up the shattered
health and during & before

the period absolute rest, here as in all other forms of Dysmenorrhoea should be enjoyed In Dysmenorrhoea membranacea if Syphilis is detected of course the usual specific treatment will be applicable, In the other cases local application directly to the endometrium, the os being previously fully dilated, such as Tinct Iodine, or the Iodized Phenol, Nitrate of Silver or other similar remedies, Anodynes to relieve pain, Tonics and Hygienic regulations ~~[illegible]~~ the ought generally to complete the cure, sometimes all these will fail. The effect of pregnancy

will sometimes cure the disease entirely though it may return after labor. In all these forms we should enforce absolute rest in the horizontal position during the catamenial flow, build up the general health and after a selection of a suitable course of treatment, continue it patiently; and never give up as long as the patient will hold on.

It seems that few truly the physician realizes, in relieving such a condition of suffering as dysmenorrhoea, one of the highest and noblest aims of his life and [illegible] with the actual saving of life-time [illegible]

B

An
Inaugural Thesis
on
DIPHTHERIA
by
Geo. H. Hacking
West Virginia.

Feb. 1876

Diphtheria

Diphtheria is an acute specific disease affecting the mucous membrane of the upper portion of the air passages. It is highly infectious and frequently assumes an epidemic form.

Diphtheria is not a modern disease. It was first described as far back as the first century of the Christian Era. being then known as "Malum Egyptiacum".

During the last three centuries numerous epidemics of it have occured and it is at present only too common and fatal

in this country as well as in Europe.

Pausation= Non observance of the laws of hygiene undoubtedly favors the increase of the disease.

A large majority more than two-thirds of the cases occur in children between two and ten years of age showing that the susceptibility of [illegible] is greater during child hood than at any other period.

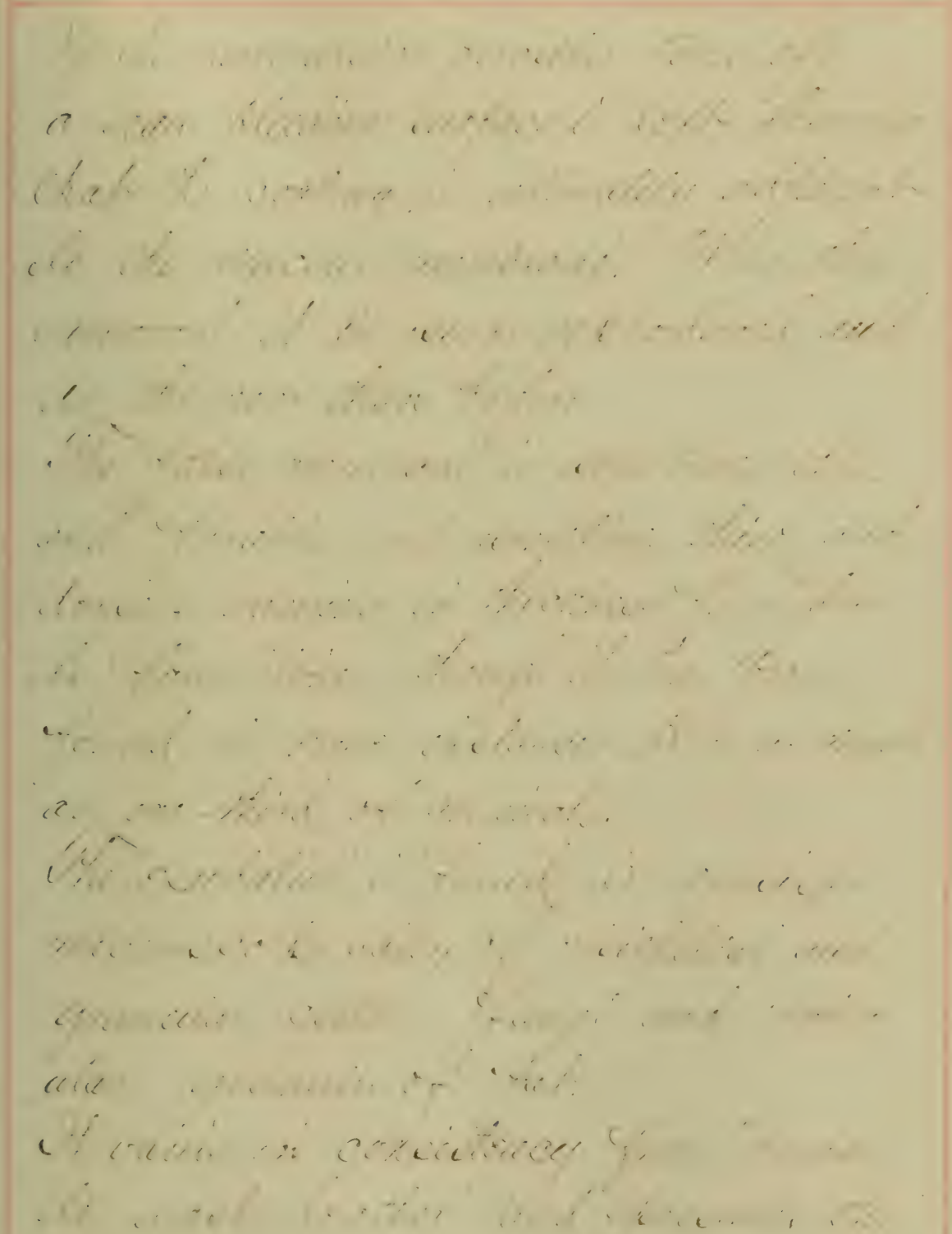
Diphtheria is undoubtedly an epidemic disease very rarely occurring sporadically. It must therefore have its special cause. What then is the special cause?

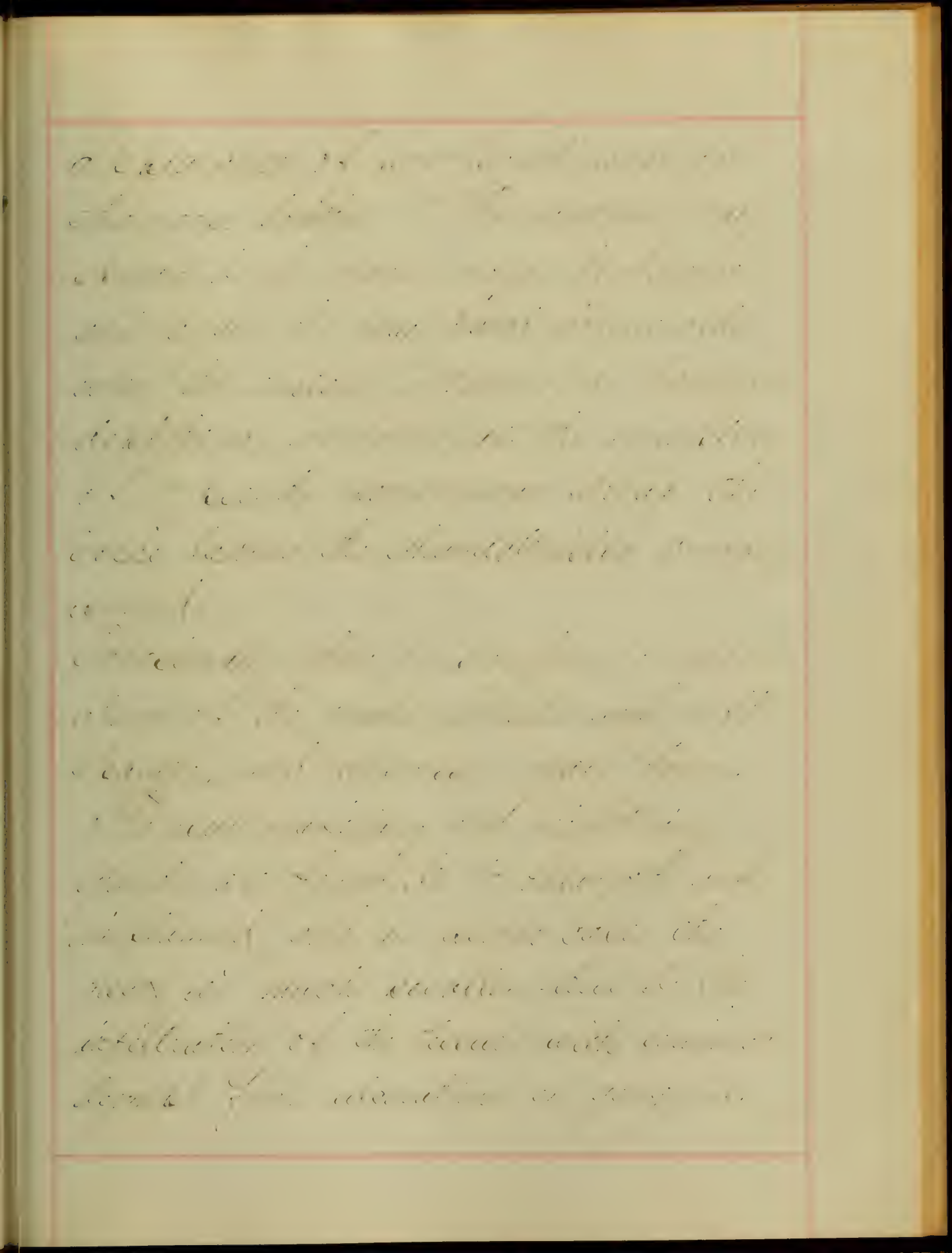
Oertel and other German microscopists by experiments on animals have proved to their own satisfaction

that the contagium or infectious element consists probably of minute objects endued with life and motion belonging to the class of microscopic vegetable parasites which have been designated bacteria.

Microscopical observations have revealed the fact that in every tissue in which diphtheritic inflammation exists these bacteria are found in large numbers, increasing as the case becomes more grave and diminishing proportionately as the case passes on to improvement.

This hypothesis is supported by the fact that diphtheria exists most commonly in localities which favor the development





Clinical history.

Diagnosis.